

U. S. DEPARTMENT OF LABOR

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BUREAU OF LABOR STATISTICS

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MONTHLY LABOR REVIEW

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Conference of paper box-board manufacturers

Coal-mine explosions and their prevention

New arbitration machinery in Germany

Labor law of Jalisco, Mexico

Wages and hours of labor in boot and shoe and
cotton manufacturing industries

Wages and hours of labor in sheet mills

Building permits in principal cities

Strikes and lockouts in the United States

WASHINGTON

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MONTHLY LABOR REVIEW

VOL. XVIII, NO. 6

WASHINGTON

JUNE, 1924

Conference of Paper Box-board Manufacturers on Shorter Working Hours, Washington, D. C., May 2, 1924

ON MAY 2, 1924, a conference of paper box-board manufacturers was held in Washington, D. C., at which delegates from over 60 companies were in attendance.

The opening address by the United States Secretary of Labor, which is given in full below, explains the purpose of this important meeting:

It gives me great pleasure to welcome the representatives of the paper box-board industry of the United States. It is a great honor to have been instrumental in calling you together in this city at this time for the purpose of joining in council to devise ways and means for the elimination of labor conditions that, in some of the mills, have survived from an outgrown past.

Before proceeding with what I have to say I wish to read to you a letter from the President of the United States. No man is in closer touch or understands better the real sentiment and feelings of the American people along these lines than President Coolidge. His letter, though addressed to me, is really to and for you, and should be considered by us here to-day as being a message from the people of the United States.

"THE WHITE HOUSE,
"Washington, April 25, 1924.

"MY DEAR MR. SECRETARY:

"It is a satisfaction to know that you are assembling the manufacturers of box board in Washington to confer upon a method for eliminating Sunday work and the long workdays in this important industry.

"I trust that you may be able to devise a method so that in this industry there may be no work upon Sunday that is not distinctly of an emergency nature. I also hope that you may find a method to abolish the alternating week of 11-hour and 13-hour shifts. There are difficulties involved, of course, but I believe that in the long run it will be found more satisfactory to have the usual hours which now prevail in industry, and the usual cessation of work on Sunday.

"I want to thank you for the interest that you have taken in this matter, and wish you would extend my best wishes to the conference for its every possible success.

"Very truly yours,

"(Signed) CALVIN COOLIDGE.

"Hon. JAMES J. DAVIS,
Secretary of Labor, Washington, D. C."

In this letter the President in a very few lines states the purpose of this conference and the motive which actuated the Department of Labor in issuing the call. As I take it your mission here is to devise some method by which the 11 and 13 hour day and the 7-day week can be abolished throughout the industry; and this seems to be a good place to call your attention to a danger. I am firmly convinced that the American public is determined to end unnecessary Sunday work, that it is determined to end the 11, 12, and 13 hour day, and that unless the industries in which these labor conditions exist can by mutual agreement within the industries end this situation, we will soon be confronted with the same situation that we are facing in the case of child labor. When all other means of ending child labor had failed, there arose a demand for a constitutional amendment which would abolish this inhumane institution once and for all.

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I think you will agree with me that it would be very much better if all of our industries could be brought into tune with the present-day public opinion through peaceful conferences rather than have such regulations forced upon industry by legislation and constitutional amendments. In times of war or other great emergency when the economic need is such that for a short period of time our machinery of production as a nation must be operated for an unusually long day, we are brought face to face with the fact that our own laws enacted to force humanitarian conditions in times of peace prevent us from taking advantage of our productive capacity. Existing antitrust legislation, which grew out of the fear that trusts and combinations would own the Government, compelled the Government to take over the railroad systems of the country during the war for the purpose of effecting combinations for efficiency in railroad administration, because these combinations would have been illegal if they had been effected under private ownership. Thus we become Frankensteins in our determination to end an economic or social situation the results of which we fear.

The paper box-board industry, which is to-day overdeveloped by 25 per cent, can not exist with one-half operating productively 3 tours per day 5 days a week with a clean-up on the sixth day and closed on Sunday, and the other half operating 11 and 13 hour tours 6 days a week and making the clean-up, which is an essential part of the industry, on Sunday, thus making 7 days' work.

There is nothing in existing law which prevents any association of employers from agreeing to cut out Sunday work in their industry, nor to prevent them from reducing the hours of labor from 11 and 13 per day or tour to the prevalent 8-hour shift. If this accomplishes the object sought, then no law is violated, and if there is anything in existing law which would prevent the absorption of the 25 per cent overdevelopment, if that be necessary to humanize the industry, then such law ought to be amended or repealed.

In this connection your attention is called to a recent decision of the United States Supreme Court in the case of the National Association of Window Glass Manufacturers et al v. United States. This decision was rendered December 10, 1923. In it the court says:

"To work undermanned costs the same in fuel and overhead expenses as to work fully manned, and therefore means a serious loss. On the other hand the men are less well off with the uncertainties that such a situation brings. The purpose of the arrangement is to secure employment for all the men during the whole of the two seasons, thus to give all the labor available to the factories, and to divide it equally among them."

Continuing it says,

"It is enough that we see no combination in unreasonable restraint of trade in the arrangements."

The situation which the Supreme Court was reviewing in the window-glass industry differs from that in the box-board industry only in that the latter has more fitful periods of shutdowns.

The fact that a very appreciable percentage of the establishments in the industry are operating without Sunday work and have abolished the long day is ample evidence that the plan is practical and that it can be done. If only four or five had succeeded in carrying out the more humane system it would be difficult for the industry to prove that Sunday work and long hours were necessary. Some very practical letters have been received in reply to my call for this conference, and when you have organized, much of this material can be turned over to your secretary for your consideration.

I realize that because of the needs in the industry for large quantities of water the plants have been located in small and sometimes remote places, that they were built in a day and time when most of our people worked long hours, and when the old myth, "Man works from sun to sun and woman's work is never done," was accepted as a sort of an axiom. Not only that, but the very remoteness of these mills made their managers jealous and suspicious of one another on general principles.

But times have changed. More and more as our social system becomes more complex do we realize that no man liveth unto himself, and from a social point of view no man can be permitted to live unto himself. In some of the letters received—I am glad to say that there are not more than one or two of them—the statement is made that the men working 11 and 13 hour tours and 7 days a week are entirely contented and happy and would resist any attempt to shorten the hours or cut out Sunday work. About 99.9 per cent of the people of the United States are wondering what kind of an American citizen is being

developed out of the man who is happy and contented with an 11 or 13 hour workday 7 days a week. We wonder what sort of a member of society he makes, what kind of a husband, a father, he has time to be, and whether he has time to care.

We hear a similar plea in regard to child labor—that the parents of these children want them to work, that they are better off in the mills than they are in the street—but the people are demanding a constitutional amendment to prevent these children from being so happy and so well off. There are even people who are suggesting that the father or mother who prefers to have his or her child in the mill rather than in school or at play ought to be fined or sent to jail; and sooner or later such an amendment to the constitution will pass.

There is a growing element in our population which would rather do without paper box-board containers than see developed in this country a class of men who are happy and contented working 11 and 13 hours a day 7 days a week. Emerson calls our attention in one of his essays to "gold ingots that cost too much." I refer to this again simply to impress upon you the social and humanitarian side of this issue; the industrial and economic remedy you must devise for yourselves in friendly conference. It may be impossible to bring about these needed reforms throughout the entire industry at once, though it would seem that the plans already in operation in some of the mills could very quickly be installed in all.

I leave the meeting with you. When you have organized, some valuable statements and opinions which have been received by the department will be made accessible to your secretary or your committees. Let your consciences dominate you, prompt and inspire you with the social duty of doing this thing, and I have no doubt you will find it comparatively easy for your intellects to devise ways and means.

The Secretary of Labor appointed the Solicitor of the United States Department of Labor as chairman of the conference, and Mr. John R. Mauff, general manager of the Boxboard Association, Chicago, was elected secretary.

At the suggestion of the United States Commissioner of Labor Statistics, a statement which he had received from the president of one of the largest paper box-board companies in the country was read in order to bring the situation in the industry before the conference. This statement brought out the fact that the paper industry is one of the oldest in the United States. While its growth has entailed invention, expensive competition, machinery, immense production, and continued technical research, the industry still clings to hoary traditions and practices which are the cause of its present economic difficulties.

As suitable watercourses are essential to the successful running of paper and board mills, these establishments are almost always located in rural places which are sometimes quite isolated, and this isolation has retarded the development of general cordial relations among the manufacturers in the industry. At the same time the enormous demand for all varieties of paper has stimulated invention and investment and resulted in a planless expansion which was especially pronounced during the war. With a surplus of paper board in process of manufacture and the market crammed with product, the industry in many cases has been operating its machinery 6 days per week, 24 hours per day, and using the seventh day for repairs and preparations for another round of 24-hour days from Monday morning until Saturday night.

According to the same statement the 2 tours of 11 and 13 hours on which many paper-board mills are still being run "are indefensible on any ground, civil, moral, or economic." The practice "is a survival of the submissive past and a reproach to the industry." In the last few years some mills have adopted the three-tour system of 8 hours each, other mills have decided on five days' operation, with

clean-up, repairs, and machine adjustments on the sixth day, Saturday, and the whole of Sunday for rest. A group of 17 or 18 mills representing approximately one-half of the total production in the United States agreed on the latter plan, the immediate results of which were increased efficiency and a higher-grade and more contented labor force. The members of the group found, however, that they were not in a position to compete with the mills running on two tours for six consecutive days and using Sunday to get ready for another six days of continuous operation. So the new plan was abandoned by all except "a few mills less vulnerable to reactionary competition," which have found the new scheme beneficial and satisfactory.

It was also pointed out in the statement that a proposal to the industry as a whole to adopt the three-tour system and abolish Sunday work creates apprehension in the minds of individual employers as to whether their fellow manufacturers can be depended upon to live up to an agreement of this kind. This distrust, together with the long-established habit of operation under the ancient order, has paralyzed progress.

As to the allegation that the proposal for the establishment of three tours and the abolition of Sunday work was in the interest of curtailed production, the following statement was made:

The advocates of this plan would not venture here with a commercial objective in the garb of humanity. They make no secret of the fact that a reasonable reduction in an overproduced industry would benefit all concerned. The record of 20 years shows that, notwithstanding the ever-increasing demand for paper board, new mills or expanded mills have been disproportionate, with the result that our producing capacity is fully 20 per cent greater than the demand. Therefore, if the plan for revised working hours results in better balancing supply and demand and a betterment in working conditions, serving equally the employer and employee, there can be no objection. It happens that they go hand in hand. Our ideas and recommendations have been indorsed by the Department of Labor, and more than a year ago, when the movement was started, President Harding, with cordial emphasis, approved what had been undertaken and hoped for its consummation. Because of this and at our request, the Secretary of Labor has called this meeting in Washington to consider what is here proposed, and, if possible, have it adopted by every paper-board mill in the country. Later, it is hoped that all sheet-paper mills will accept the paper-board industry's example and participate in its aims for industrial betterment.

Elimination of Sunday Work

AFTER the reading of the statement summarized above, a resolution was introduced which was amended to read as follows:

It is the sense of this meeting that we change the working hours of the industry to five days of operation consisting of 120 hours, the sixth day reserved for the changes and repairs, and the entire elimination of all Sunday work.

In the discussion that followed, certain companies expressed their attitude on this resolution.

Mr. W. H. Richardson, vice president of The Richardson Co., Lockland, Ohio, operating on two tours, was entirely willing to inaugurate the new system and expressed the hope that the other mills would see the light.

Mr. S. B. Fleming, president of the Fort Wayne Corrugated Paper Co., declared his willingness to cut down daily hours, a procedure which he estimated would cost him \$150,000, which he proposed to recover by raising prices; he stood firmly, however, against a 5-day week unless there was some way of enforcing it. It was explained to him that a committee was to be elected to follow up any agree-

ment reached and report back to the United States Department of Labor as to "who are keeping faith."

Criticising the resolution as tending to curtail production, Mr. William W. Walker, managing director of the MacAndrews & Forbes Co., Camden, N. J., moved that the resolution be amended to read:

It is the sense of the meeting that the box-board industry mills curtail their hours of operation to a maximum of 6 full days a week, including washing up and repair work, and total elimination of Sunday work.

Mr. Walker's reason for making the amendment was that his company was able to do its repair work in from 4 to 5 hours and start up again and he did not wish to lose the "advantage of efficiency" which his mill had. He also said that as regards expense of operation in the mill his company was willing to go as far as any one at the conference.

Mr. W. J. Alford, of the Continental Paper Co., Bogota, N. J., suggested that if Mr. Walker's company adopted the five-day week it would probably be able to do its cleaning up in even a shorter time than under its present system of operation and would therefore still have its advantage of efficiency.

As pertinent to the resolution under discussion, the United States Commissioner of Labor Statistics presented the following production figures of an identical mill under three different plans of operation.

	Daily average tonnage
Six days, two tours, Sunday clean-up (May 1, 1919-April 30, 1920)-----	181. 4
Six days, three tours, Sunday clean-up (May 1, 1920-December 31, 1920)	183. 1
Five days, three tours, no Sunday work (January 1, 1923-December 31, 1923)-----	218. 4

He called attention to the increase of nearly 40 tons per day following the abolition of Sunday work, which seemed to show that the elimination of such work made for greater efficiency among the men. Another mill was obliged to increase its labor force 18 per cent on changing from two to three tours, the added labor cost being from 73 to possibly 78 cents per ton. He held that if the first-mentioned mill, which had increased its product nearly 40 tons a day after giving up Sunday work, had raised its labor cost 78 cents a day, the extra tonnage over which to spread the overhead expense would more than likely take care of the additional labor cost.

"There was nothing in the paper industry except machinery, * * * labor had nothing to do with it," according to the viewpoint of one of the delegates.

Mr. George W. Gair, president of the Robert Gair Co., took the stand that "those who want to run more than they are entitled to are simply breaking down any promise of decency in the industry."

A plea for the two-tour system was made by Mr. Tom Harvey, manager of the Gardner & Harvey Co., Middletown, Ohio, who reported that his men would rather work two than three tours. He said a great number of his force who had been working for the American Rolling Mill Co. on 8-hour shifts for more money than his paper mill could pay had come back to work for him on a 12-hour tour because work in his paper mill is far less strenuous and even affords opportunity for sleep while on duty. For the past 17 or 18 months his mill had been on a five-day basis, one tour having 48 hours off every week and the other tour 36 hours off.

The Chicago Mill & Lumber Co., Chicago, was, according to its president, Mr. Walter P. Paepcke, operating at present on two tours, but would prefer going to three tours for humanitarian reasons. He felt that if the mill gave its workers more money per day and per week they would not insist upon a 13-hour tour.

Mr. Otto Bauer, president of the La Fayette Box Board & Paper Co., declared that he would go out of business rather than go back to the two-tour system which he felt did not make for good citizenship. Mr. Bauer appealed for voluntary action in correcting bad conditions instead of waiting until compelled by law. He held that the amendment to the resolution would not do away with Sunday work and that 120 hours per week were sufficient for any 24-hour industry. If six days and six nights were agreed upon simply on a chance of eliminating Sunday work, such work would not be eliminated.¹

Mr. George M. Seaman, president of the Eddy Paper Corporation, voiced the hope that the delegates would vote unanimously against the amendment, as under it they would all be doing Sunday work.

The Commissioner of Labor Statistics said: "We have represented here to-day at least 80 per cent of the paper box-board mills of the United States and probably 95 per cent of the production of such mills. I want you to feel that practically the whole industry is here represented and that whatever you agree on to-day will be the moral law of the industry. I do not believe that if you agree on something you will go back on it, that is, if it is practical, and it is up to you to make it practical."

The opposition of the Chicago Mill & Lumber Co. to the amendment was explained by its president, Mr. Walter P. Paepcke, on the ground that "any mill which feels it can clean up in 4 hours will run $5\frac{3}{4}$ days and then clean up in 5 or 6 hours." If anything happens "we will have to run a little over the time. * * * Everyone who is unsuccessful will overrun the time and in a very short time we will have chaos."

Mr. William W. Walker said that his mill closes down production on Friday at 7 a. m., cleans up and repairs, then starts up again and runs until 7 a. m. Sunday.

Mr. W. J. Alford, of the Continental Paper Co., inquired as to the condition of the workers after being on duty all Saturday night. In his opinion, a scheme involving repairs on Friday and a start the next day would seem very impractical to many of the box-board manufacturers.

The Franklin Board & Paper Co. has been operating with three tours and a six-day week. Its president, Mr. George Little, said it would not be able to compete if it operated less than six days. The desire for a holiday on Saturday, he thought, led a great many men to prefer the two-tour to the three-tour system because they were off duty from Saturday morning to Monday morning. He felt that it would be the proper thing to close down Saturday morning for the benefit of the working force if such closing down were found to be "legal." Even this limitation of the working week would not, in his judgment, "take up the excess of production."

¹ Mr. Bauer told the Commissioner of Labor Statistics that in the La Fayette Co. the tours were from 6 a. m. to 2 p. m., 2 p. m. to 10 p. m., and 10 p. m. to 6 a. m.

Mr. Bruce Davidson, of the National Biscuit Co., raised the question as to where a sufficient supply of men were to be secured to run enough mills five days a week to provide for the future requirements of the industry. This speaker also suggested the practicability of beginning maintenance work Monday morning at 7 a. m. and allowing for such work one tour of 8 hours or even longer if necessary. He thought that 95 per cent of the time production could be started at 3 p. m. Monday. If the industry needs a 20 per cent curtailment of output the mills could be closed at 3 p. m. Saturdays.

The president of the Robert Gair Co. emphasized the necessity for a clear-cut agreement so that there would be no chance of cheating.

An inquiry was made by one of the delegates as to whether the impending vote should be understood as in the nature of an approval of an operating schedule, not as a pledge obligating the mills represented, and also whether it should be understood that there were no legal means to enforce the resolution which might be adopted. The chairman replied that the proposed measures were for the purpose of "expressing the sense of the meeting."

Before voting on Mr. Walker's amendment it was agreed that the word "seventh day" should be substituted for "Sunday," which made the measure submitted read as follows:

It is the sense of the meeting that the box-board industry mills curtail the hours of operation to a maximum of 6 full days a week, including washing up and repair work, also the total elimination of work on the seventh day.

The above proposal was defeated by a vote of 40 to 3, the representatives of 18 companies not voting.

A ballot was then taken on the resolution as it stood prior to Mr. Walker's amendment. The resolution was adopted, 43 being in favor of it, 3 against it, and 15 not voting.²

The Eight-Hour Tour

THE Secretary of Labor acted as chairman at the afternoon session. He expressed his gratification on the passage of the resolution regarding the cutting out of Sunday work, and again called attention to the overdevelopment in the paper box-board industry and also to the recent action of the steel industry in adopting an 8-hour shift program. He predicted there would be hundreds of other organizations advocating this movement.

Referring to the question of a shortage of man power, which was brought up in the morning session by the representative of the National Biscuit Co., the Secretary of Labor stressed the fact that there was a large amount of overdevelopment in industry, citing as examples the surplus of 240,000 men in the coal industry; the making of 750,000,000 pairs of shoes per annum although only 350,000,000 pairs were used; that all the steel needed per year is manufactured in eight months and all the window glass in seven months. He then urged the conference to take action on the matter of an eight-hour tour.

Whereupon the following resolution was introduced by Mr. Peter C. Brashear, president of the Fort Orange Paper Co., Castleton-on-Hudson, and was seconded by one of the delegates.

² The resolution referred to tour men.

It is the sense of this meeting that the 11 and 13 hour tours should be abolished, and that a committee be appointed from the industry to put into operation the eight-hour tour as soon as possible, and not later than January 1, 1925, and that eight hours is hereby recognized as the proper labor hours in the industry.²

Mr. E. B. Weston, president of the Auglaize Box Board Co., Dayton, Ohio, said that his men had petitioned for a return from the three to the two tour system which gave them every Saturday off. Upon being questioned Mr. Weston acknowledged that the workers' pay for 11 and 13 hour tours was higher than for 8-hour tours.

According to Mr. C. W. Goodyear, treasurer of the Bogalusa Paper Co., Bogalusa, La., conditions in the South are somewhat different from those in other sections of the country; the days are longer and there is not the same demand for shorter hours. He thought that his men would prefer to remain on 2 tours in order to get two days off every other week and stated that an 8-hour tour for his company would necessitate the building of about 300 houses, and the increase of the water supply, sewerage, hospital capacity, and schools. He did not wish to vote against the resolution or decline to vote but would like to have a little more time given to the southern operators for considering the proposal.

The United States Commissioner of Labor Statistics reported that the production of the southern States, Alabama, Tennessee, Georgia, and Louisiana, was only 430 tons per day out of about 14,000 tons per day for the industry.

In order to ascertain how many of the companies represented were operating on a three-tour system, the Secretary of Labor asked the delegates of such companies to stand. Twenty-eight men rose. In response to a similar inquiry on the two-tour system, 27 men rose.

Mr. Tom Harvey, manager of the Gardner & Harvey Co., argued for the two-tour system on the ground that men would get lazy and stupid if they worked only eight hours a day in a board mill and that his men had of their own accord decided to work two tours. Mr. W. J. Alford, of the Continental Paper Co., took issue with this view, however, stating that men working in a board mill have very few minutes to sit around, and he was sure that the workers want long hours only when the employer does not pay a fair wage for an eight-hour day. Mr. Harvey admitted that his men did not get the same hourly rate as men working an eight-hour day.

The Secretary of Labor asked whether there was any "great clamor" among men on 8-hour tours to go back to two tours. The president of the Robert Gair Co. reported that he had many men who would object to going back.

The Rockford Paper Box Board Co., Rockford, Ill., trains its own men and does not take skilled labor from other establishments. The secretary, Mr. Ray Wantz, spoke of the consequent problem involved in that company's going on a three-tour system. The management tried to make up for the shortage of trained help by getting the men to work overtime from other tours. They objected strenuously to this, however, and the two-tour system was again resorted to, but with the understanding that unskilled labor should work alongside the skilled men until trained. At present the extra set of men is about ready to do the skilled work and Mr. Wantz was of the opinion that the three-tour plan can be adopted without any great difficulty.

² The resolution referred to tour men.

In the opinion of Mr. Sidney Frohman, president of the Hinde & Dauch Paper Co. of Sandusky, Ohio, only 40 per cent of the delegates would vote against the resolution. He advocated its withdrawal and the calling of another conference by the Secretary of Labor six or eight months later to report on changes resulting from the present meeting and for a further analysis of the situation.

In response to a question by the Secretary of Labor as to how many companies now operating on two tours would establish three tours by January 1, 1925, 11 men rose, one of the number stating that he would make the change if it was acceptable to his workers.

The president of the Chicago Mill & Lumber Co. suggested that more representatives would have risen if they had known what their competitors were going to do, adding that his own company would go on three tours if he could count on five or six of its competitors doing likewise.

The president of the Robert Gair Co. stated that three out of the four mills of his company were operating on three tours and that the company would adopt three tours for his Chicago plant whenever the Chicago Mill & Lumber Co. would do so. Whereupon these two officials then and there entered into an agreement to run on the new basis.

The problems in the way of abandoning the two-tour system in his company were discussed by Mr. W. H. Richardson, vice president of the Richardson Co., Lockland, Ohio. He explained that if his board machines were to be run on three tours his felt machines would have to be operated on the same system, and that a five-day week for board machines would mean a six-day working week for the felt machines so that the proposed changes if carried out would also affect his felt machines and his roofing business, which was quite another proposition.

A part of the objection in the conference was declared by the president of the La Fayette Box Board & Paper Co. to be due to a mental attitude and a mental condition. His establishment was on a three-tour basis and he thought there was no reason why all the mills in the industry should not do the same thing. It required no special effort—merely the "right mental attitude." He made a strong plea for whole-hearted action in favor of an eight-hour day.

The resolution was adopted by a vote of 49 with no opposing vote, 12 delegates not voting.

Congratulations were extended to the conference by the Secretary of Labor and the Commissioner of Labor Statistics. The latter pointed out that the nonvoting element constituted "the fly in the ointment;" at the same time he was sure that in a substantial percentage of cases failure to vote was due to the delegates' feeling that they would have to make some arrangements when they got back, before committing themselves definitely to the three-tour scheme.

The following committee, representing different sections of the country, was elected to carry out the plans and policies agreed upon at the conference, and to make progress reports at intervals to the Secretary of Labor and the Commissioner of Labor Statistics:

Eastern and Seaboard: Mr. Geo. W. Gair; Mr. John Jacobs; and Mr. Maurice W. Simon.

Central and Central West: Mr. Geo. M. Seaman; Mr. George Little; and Mr. H. L. Rauch.

Southern: Mr. A. M. Sheperd; Mr. A. C. Goodyear; and Mr. Fred A. Norris.

There was a rising vote of thanks to the three officials of the Department of Labor for "the splendid work accomplished."

The Commissioner of Labor Statistics said he was much more pleased with the day's work than any of the delegates could be. He also warned that no line of industry in this country could go on much longer on a basis of 11 and 13 hour tours and 7 days a week without labor troubles that would "jar us all." He expressed his belief, however, that such troubles had been averted in the box-board industry.

The Secretary of Labor in his closing remarks to the conference declared that he had had a "joyful day" which had strengthened his faith in the Government of the Nation.

At a meeting of the Boxboard Association the same afternoon it was agreed that the new plan of operation covered in the last resolution should become effective the following week.

Coal-mine Explosions and Their Prevention ¹

By H. FOSTER BAIN, DIRECTOR, BUREAU OF MINES, U. S. DEPARTMENT OF THE INTERIOR

SINCE the first of January of this year five explosions, killing about 383 men, have occurred in the bituminous mines of the United States. The coal industry has not in years suffered as many big disasters in so short a time, and the entire country is properly aroused.

Why did these explosions occur? Were they entirely accidental or could they have been prevented? Will similar explosions follow? These are some of the questions which are asked. Investigations now under way will determine the causes of the past accidents and what, if anything, might have been done to prevent them, but investigations alone will give no assurance that similar accidents will not again occur. The lessons learned must be applied and every possible precaution taken if this killing is to be stopped.

The let-down of morale on the part of the individual miner is indicated by an increase in the number of accidents caused by falls of roof or of coal falling at the working face, for the prevention of such accidents is a matter that is mainly in the hands of the individual worker. In the matter of explosions, however, there is a collective responsibility which begins with the individual whose act or carelessness is the cause of the accident and continues to the operator who permits mining conditions that allow the extension of a local explosion into one spreading through the mine. While one man may ignite

¹ This article on "Coal-mine explosions and their prevention" is in response to the following letter from the Commissioner of Labor Statistics:

MAY 6, 1924.

"MY DEAR MR. BAIN:

"It is intended to have a brief article in the June issue of the MONTHLY LABOR REVIEW upon the subject of recent mine explosions and prevention of explosions in mines.

"It seems to me that it would be most fitting if we could have a three or four page statement from you or some one in charge of that work dealing specifically with these questions—

"1. Were these catastrophes preventable? I mean the large mine explosions that have occurred within the last six months.

"2. Would they have been prevented had the published and available instruction and directions issued by the Bureau of Mines or anybody else (giving the source of such instruction), and already placed in the hands of the mine operators, been followed and complied with?

"3. If so, why were these explosions not prevented?

"Sincerely yours,

"ETHELBERT STEWART,

"Commissioner of Labor Statistics."

fire damp by smoking or opening a safety lamp, or may by firing a dangerous shot cause an explosion, the broadcasting of these explosions through the mine with the consequent large loss of life, is due invariably, so far as present knowledge goes, to the presence of coal dust, and investigations carried on by the Bureau of Mines for more than 10 years have demonstrated beyond question of doubt that such spreading of explosions by coal dust can be prevented. Responsibility for this rests upon the mine managements.

Although the possibility of coal dust causing explosions had been considered for more than a century, and much testing in laboratory apparatus and in small surface galleries had been done, few coal-mining men, especially in America, believed, when the bureau began its work, that coal dust was explosive. It was generally held that fire damp or gases of unknown composition were responsible for explosions in bituminous mines.

As coal mines increased in number, size, and depth, explosions became alarming in their frequency. Then came the Courrières disaster in Northern France in 1906, by which 1,100 lives were lost, and the following year in this country the Monongah mine explosion in West Virginia, which killed 361 men, and the Darr explosion in Pennsylvania, which killed 239 men. These last two disasters, both in December, 1907, led Congress to order an investigation of the causes of mine explosions. This work was placed under the technologic branch of the United States Geological Survey, with the late Dr. Joseph A. Holmes in charge. When Congress established the Bureau of Mines in 1910, this work was transferred to the new organization, of which Doctor Holmes was named the first director. Shortly after his appointment, Doctor Holmes approved a plan for obtaining an experimental mine for investigating the causes and prevention of coal-dust explosions. The mine was opened on leased ground at Bruceton, Pa., a short distance outside of Pittsburgh, and has now been in active service for 12 years. The property has recently been purchased, so that the work may go on indefinitely.

The first 15 experimental explosions were brought about and studied during the fall of 1911 and the winter of 1912. The practical mining men of the country, who still were incredulous as to the explosibility of coal dust, were invited to be present and many came. Of these early explosions, two were so violent that the mine was idle for several months while the wreckage was being cleared away. In one of them, a mine car was shot from the entry of the mine with such force that it was carried nearly 300 feet before landing on an opposite hillside. After that, little doubt remained that coal dust was itself explosive and also the cause of an initial explosion being extended throughout the mine. Determination of means of prevention was less easily made.

Since that time more than 500 experimental explosions have been produced in the bureau's coal mine at Bruceton. Dusts from all parts of the country and from every type of bituminous coal have been used in propagating an explosion. In fact, knowledge of coal-dust explosions has arrived at a point where, given a certain set of conditions, the engineers produce results predicted beforehand. Coincident with this work of studying the causes and effects of explosions, research was carried on to devise methods for the pre-

vention of the wide spreading of minor initial explosions. Two methods were demonstrated. The first is to wet the dust thoroughly so that no dry dust remains in the mine. The coal dust is made into a mud which can not be thrown up into suspension in the air by concussion. It is this throwing it up in a cloud along the entry that permits the flame to pass from one volatile particle to another, which, when rapid enough, becomes an explosion. A better method is to dilute the coal dust with shale dust or limestone dust, or any noninflammable dust, so that the explosion will not pass from point to point even though a dust cloud be raised by the concussion of blasting or by the wreckage of a trip of cars.

The objection to the wetting down of the dust is that it must be done every day and must be thoroughly done to be effective. The second greatest coal-mine explosion disaster in this country followed the omission of watering over two days. The "shale dusting" method is required by law in Great Britain, where there is dangerous dust, and it is officially approved in France. Except for a few mines, rock dusting or shale dusting, to use the British term, has not been used in the United States, although it has been strongly recommended by the Bureau of Mines. Watering or humidifying has been relied upon in the coal mines of this country, but the numerous coal-dust explosion disasters of the past two years, some of which have occurred in what were considered well-watered mines, have caused mining men to be suspicious of the efficiency of watering.

Bureau of Mines officials state that watering as a general method is a failure and they urgently recommend rock dusting. The latter method has several great advantages: It does not have to be applied daily in every part of the mine as does water; the dust is visible and the presence of coal dust can be observed readily, which is not true in a watered mine; and the lightness of color of rock dust suitable for the purpose improves the illumination of the mine passages and so tends to prevent many individual accidents from haulage and dangerous roof conditions.

Many kinds of rock dust are suitable for the purpose, notably limestone and light-colored clayey shale free from flinty particles which it would be unhealthful to breathe. The Bureau of Mines offers to assist mine operators in determining the suitability of material which may be available for the purpose of rock dusting.

There are many things which should be done to lessen the amount of coal dust, but it is impossible to prevent entirely its formation or collection in bituminous mines. Only 81 hundredths of an ounce per cubic foot of air space in mine passageways, or five ounces per lineal foot of an entryway of ordinary size, which is barely enough to make a thin film when spread on the surface, will propagate an explosion. Treatment methods of some sort are, therefore, necessary.

Detailed information regarding the 494 explosion tests which had been produced at the experimental mine up to May 22, 1918, is contained in Bulletin 167 of the Bureau of Mines, of which George S. Rice, chief mining engineer, is the senior author. In this bulletin, the tests made with the various bituminous coal dusts, the methods of preventing explosions, and the means of limiting their effective area are all reviewed.

Although these tests include those made with many types of coal dust, if there still are mine operators in the country who doubt the explosibility of the dust formed in their own mines they need only send a sample to the Pittsburgh station of the Bureau of Mines and the explosibility of their dust will be determined. There is a regular procedure for making such tests, and operating officials of the mines are especially welcome as observers of the explosion which uniformly results. Methods of limiting and controlling such explosions by the use of shale dust are also regularly demonstrated to such visitors.

It is well also to remind the coal miners and operators of the seasonal dangers of coal mining. During the summer months the air in mines is full of moisture and the coal dust becomes damp or wet, but with the colder dry air of fall or winter, the moisture is rapidly dried out. When the coal dust is thus dried out and a small pocket of fire damp is ignited, a blown-out shot occurs, or there is an arcking from the electric cables, the dust may be ignited and an explosion may rush through the mine as far as the dry coal dust is present. A violent air wave precedes the explosion wave, raising the dust and thus providing the fuel for the extension of the explosion. After this is the deadly afterdamp which, by its poisonous and suffocating effects, kills those even beyond the area of flame and violence.

Up to the series of disastrous explosions in 1922 the record of decrease in explosions in recent years had led the Bureau of Mines to feel that dangers from this source were being eliminated. From 1901 to 1910, before the bureau was formed, there were 106 explosions in which five or more men were killed, it being considered that where less than five men were killed there had been no extended propagation of a local explosion. In these 106 explosions, 3,296 men were killed. After the demonstrations in the bureau's experimental mine, beginning in 1911, the number of bituminous mine explosions declined as a result of the educational campaign inaugurated by the Bureau of Mines and the cooperation of miners and operators. In the 10 years from 1911 to 1920, 75 explosions occurred in which five or more men were killed, with a total of 2,057 deaths, a reduction of 1,239 in number killed as compared with the preceding 10 years, although the average number of miners and the average production had increased by nearly one-half. The most encouraging feature was that of the last years of this decade. In the four years, 1918, 1919, 1920, and 1921, deaths from explosions in which five or more men were killed were 41, 81, 47, and 21, respectively; hence the recent disasters cause alarm as probably indicating neglect of precautions.

A certain number of accidents due to risks of the occupation, such as the falls of roof, must be expected, but the present high rate is excessive. The great explosions, however, should not be considered to be normal occupational accidents. Explosions can and must be prevented. There is no reason, with the present knowledge, why local explosions in mines should spread throughout the entire underground workings. Miners and operators, as well as official inspectors, must take hold of the situation promptly and vigorously or there will be still more serious explosions and more men killed. Knowledge not applied is of no value, however practical it may be in its bearings.

Since the explosion at Castle Gate, Utah, on March 8, 1924, in which 172 lives were lost, all producing coal mines in that State have approved the program of the State industrial commission, effective July 1, which requires the use of rock dust to prevent the wide spreading of coal-dust explosions; the use of water on the cutter bars of mining machines to decrease the amount of dust formed; the use of closed lights; and the use of permissible explosives only, to be set off only by electric shot-firing methods. These requirements follow an intensive study of safety precautions made by the industrial commission after the disaster at Castle Gate.

Utah is the only State which has as yet required all these safety precautions, and it takes the lead, as a result, among all coal-mining States in regulations for mine safety.

Prevention of Coal-dust Explosions and Other Accidents in Coal Mines

IN view of the unprecedented number of major mine disasters which have already occurred this year, a collection of articles relating to the extent and seriousness of such accidents, together with an article containing a suggested program for their prevention, published in the American Labor Legislation Review, March, 1924, are of particular importance.

An article by H. Foster Bain, director of the United States Bureau of Mines gives a résumé of the work which is being done by the Federal Government toward combatting mine accidents. It has been found that while the loss of life per ton of coal produced in the United States is less than in other countries, the loss per 1,000 employees is several times greater. About half the deaths in coal mining are caused by falls of roof and rock, which can be prevented only by the exercise of care on the part of the individual workman. Safety campaigns and the extensive program of instruction in first aid carried on by the bureau have been the methods of prevention followed, the latter work not only supplying valuable training but also teaching the men to think about safety. Up to the present time nearly 100,000 men have taken the course given by the bureau and have received certificates.

While explosions and fires in mines kill fewer men than rock falls, they kill many at a time and therefore attract more attention. These accidents, too, are the ones which there is most hope of preventing through the extension and wider application of scientific knowledge. An important factor in accident prevention has been the development of permissible powders by the manufacturers in cooperation with the bureau. These are short-flame, low-temperature powders, of which specified quantities may be safely used in gaseous mines. Manufacturers making such powders can have them tested by the bureau for a small fee, and as long as any powder is kept up to the established grade it can be advertised as "permissible."

Similar work has been done in regard to designs of machinery for use in gaseous mines, especially that which is electrically driven. The use of electricity is safe only if it is employed in permissible apparatus, but the development of such safe devices and machines is slow and expensive. In this work the bureau cooperates with the manufacturer, setting the standards and testing the different machines.

The mine rescue instruction and disaster work of the bureau is carried on by specially trained men from 10 safety stations and 10 mine rescue cars, their work supplementing that of the operators of the mines. In the main it is their purpose to insure at every mine enough trained men in the newer methods to handle a disaster, in addition to forming a reserve to be called upon by the industries in case of need.

The writer says, however, that in spite of "these and similar encouraging facts that might be cited, those who are most familiar with the work are impressed more with the large amount that remains to be done than with what has as yet been accomplished. Despite the cooperation of State and Federal forces, of companies and men, the sad fact remains that too many men are annually killed and disabled in American mines."

An article on coal-dust explosions, by J. E. Jones, a mine safety engineer, deals with the experience of an Illinois coal company in preventive work in a number of mines located in a particularly hazardous coal field. The Franklin County coal field, in which most of these mines are situated, is a comparatively new field having at present an annual capacity of approximately 20,000,000 tons. The mines are gaseous and the coal dust is highly explosive, the fatality rate for the period 1904-1921 being nearly double that of the State for the same period. The difference in the rate is due in large part to fatalities resulting from explosions.

Much progress has been made in safeguarding against explosions in this field through a better understanding of the dangers of gas. The greatest factors in the reduction of the fatality rates have been the elimination to a large extent of the use of naked lights, the use of permissible explosives for blasting, and education of the workers in regard to the mining hazards and the necessity for complying with the safety regulations.

A number of more or less serious mine explosions caused the company, which operates 12 mines in this section of Illinois, to begin the installation of closed lights and to conduct an investigation into the use of shale dust. This study was carried on with the aid of the Bureau of Mines which tested the explosive properties of the coal. It was found that dust in these mines, containing 58.66 per cent of incombustible matter with no gas present, did not propagate an explosion, but that dust containing 58.17 per cent of incombustible matter with 1.1 per cent methane present and dust containing 66.72 per cent incombustible matter with 2.2 per cent methane present both propagated explosions. Experiments also showed that shale dust, being almost entirely incombustible, could be successfully used in extinguishing explosions. In this mining region, too, early experience had shown the value of the panel system of mining, in which the panels are not connected but open into a pair of main entries for ventilation and haulage, in localizing explosions and mine fires. The entries leading into each panel and the haulage roads and air-courses are treated with shale dust, which is mechanically applied by small portable high-speed fans.

Since the adoption of the shale-dust system, seven explosions have occurred in the mines of this company. In all cases these explosions were stopped by the nearest shale-dust zones. In one case the explosion had a start of 700 feet before striking the section treated

with shale dust. This was a terrific explosion which gained in violence until coming in contact with the shale dust at the panel entrance where it was extinguished.

Considerable confidence has been engendered among the men and in the management of this company in the efficacy of shale dust in stopping the flame of an explosion, as a result of their experience, and it is considered that by neutralizing the coal dust with incombustible dust, installing closed lights of a type found permissible by the Bureau of Mines, and preventing as far as possible the accumulation of gas by proper ventilation and inspection, the frequency and severity of mine explosions, even in highly gaseous mines, can be greatly modified.

Another article in the series, entitled "Needless coal-mine accidents," by Dr. John B. Andrews, contains the recommendations of the American Association for Labor Legislation for their prevention.

Doctor Andrews cites the fatality rates of Great Britain and the United States for the years 1919, 1920, and 1921, the latest years for which comparable statistics are available, not only to show the much higher fatality rate in this country but also the disturbing fact that "the relative fatality rates, though fluctuating rather widely, show on the whole a decided increase."

The rates for the years 1919 to 1921 are as follows:

FATALITY RATES PER 1,000 WORKERS

Year	United Kingdom	United States	Ratio—United States to United Kingdom
1919.....	0.94	3.03	3.22
1920.....	.88	2.92	3.32
1921.....	.66	2.42	3.67

The rate for bituminous mines during the 10 years ending in 1922 is 4.30 per 1,000 employed, which is considerably higher than for the industry as a whole. The average number of men killed each year during this period is 1,824, of whom approximately one-half were killed by falls of roof and coal, about 18 per cent by mine cars and locomotives, and about 12 per cent by gas and coal-dust explosions, the remainder losing their lives from various other causes.

In connection with the five proposals put forward by Doctor Andrews for reducing the accident hazard in coal mines, the recent report of a committee representing coal-mine operators, miners, casualty insurance companies, mining engineers, mine inspectors, and statisticians under the chairmanship of E. A. Holbrook, dean of the mining school, Pennsylvania State College, is discussed.

The proposals are as follows:

1. The adoption of uniform legal minimum standards of safety.
2. The use underground of no explosive that is not after scientific investigation numbered among the "permissibles"; the strict limitation of "shooting off the solid"; and the use of shale or approved rock dust to check the spread of coal-dust explosions.
3. Reward careful employers and penalize the less scrupulous, by the universal adoption of schedule rating for insurance under accident compensation laws, with a further graduated penalty for cases of willful failure to put into effect legal safety regulations.

4. An adequate mine inspection staff selected upon a merit basis of training and experience, fairly paid for reasonably long tenure of office, and protected from partisan interference, whether political or industrial.

5. Greater public authority, Federal and State, to procure and disseminate information, and to establish and maintain on a uniform basis reasonable minimum standards of safety.

While mining codes have been adopted in most of the coal-mining States—the first in Ohio in 1874—these codes differ so in scope and effectiveness, the writer states, that the association has noted “a growing conviction that unless State regulations are generally and rapidly improved, the suggestion is to be expected that operations in this industry which are regarded as in the nature of a public service should be subjected to some form of Federal control.” The need of additional authority is said to be plainly apparent, since in 1922 the percentage of permissible explosives used in coal mining was 18.2. The following statement in regard to Federal supervision is made by the safety committee:

While many of us oppose so-called Government paternalism, yet we believe it is the duty of the Government to secure safety of life by wisely directed legislation. If the compulsion by the Government to use life-saving devices, as the air-brake and automatic coupler on our railroads, is proper, we believe the coal industry should prepare (especially in new operations) to universally adopt safety suggestions.

Although it is stated the need for the enforcement of the regulations in the second proposal is generally accepted and understood, the percentage of permissible explosives used is still so small and the use of rock or shale dust for the control of explosions is limited to such a small number of companies it seems that “if it is necessary on this subject to have compulsory legislation in this country, it cannot come too soon.” In France and England the use of shale and rock is compulsory.

In connection with the third proposal, schedule rating is said to have already demonstrated its value in inducing employers to reduce insurance premiums through a reduction in hazards. Some mining States provide a special penalty of from 15 to 50 per cent additional compensation to the injured worker when it can be shown that the employer was guilty of serious or willful neglect of safety provisions, with a similar loss of accident compensation by the employee when he is the offender.

Official inspection is considered to be of great importance in influencing operating methods and working conditions, and the fourth and fifth proposals, for an adequate inspection staff and for greater public authority in securing information and enforcing regulations, are said to be in harmony with the best practical experience in factory as well as in mine accident prevention.

The seriousness of the present situation in the coal-mining industry and the urgent need for action is summed up by Doctor Andrews as follows:

Every day that heedless coal mine managements delay the removal of needless accident hazards in their industry—every mine catastrophe that shocks the public through its needless sacrifice of human life—strengthens the argument for the adoption of uniform legal regulations. Moreover, some conscientious employers have made progress in mine accident prevention and it is only reasonable and fair that they be protected from the undercutting of any competitors who have been less humane, less responsive or less scrupulous. Voluntary effort is to be hailed with special enthusiasm, but it is only with the cooperation of supporting legislation, backed up by public opinion, that within a reasonable time the needless industrial hazards can be universally and permanently abolished.

New Arbitration Machinery in Germany

By BORIS STERN

ONE of the first acts of the Streseman Government, in its attempt to bring about the much-needed equilibrium between the income and the expenses of the Reich, was completely to revise the structure and the procedure of the impartial arbitration machinery of the country. Arbitration as a Government institution had existed in Germany since December 5, 1916, when it, together with the compulsory shop committees, was introduced as a war measure by the national service law. Its nature and functions were, however, definitely formulated only by the decree of December 23, 1918, which concerned itself chiefly with the problems of collective agreements. Since then hardly a law has been passed in the field of labor which has not added some function to the activities of the arbitration boards. This is especially true of the works council law, with its numerous legal technicalities, most of which were referred to the boards for final decision. Their dockets soon became so crowded that in spite of the increased number of members and the subdivision of the boards by trades and industries, no case was likely to come up for decision in less than 30 days after the filing of the application.

Besides this slow and awkward functioning of the machinery, there were other reasons why the arbitration boards became the object of attack by both employers and employees. The employers resented the constant interference of the arbitration boards in their relations with individual workers, while the employees soon came to realize that even when the decisions of the board were in their favor, they were far from actually securing the benefits of these decisions, for the simple reason that they were not binding upon the employers and to make them enforceable the workers had to apply to an official court, which could very easily dismiss the entire case on the ground of some legal or technical error on the part of the board. It was this lack of popularity, on the one hand, and the rapidly growing expense of its upkeep, on the other, that caused the Government to undertake a complete revision of the system. Plans for this revision were drafted some time ago and a bill was ready to be presented to the Reichstag, when the disastrous results of the inflationist policy, which brought the German Government to the very verge of bankruptcy, forced the latter to proceed with the revision without the approval of the Reichstag, as one of the means of securing the much-needed economies.

The decrees of October 30, 1923, completely abolished the old arbitration boards and established instead a system different both in function and structure. First, the districts were made considerably larger and due consideration was given this time to the social and economic nature of the district, in contrast to the old division which was based upon the military requirements of the country. This, of course, became possible only after a large portion of the work previously done by the arbitration boards had been transferred, as will be seen later, to other agencies, and the scope of activities of the new boards thus considerably limited. Also in contrast to the old system, the new district boundaries were not made absolutely fixed and final, so that when needed, a redivision can easily be accomplished.

Besides, the various States were given the privilege of combining and forming joint arbitration boards for two or more States, thus eliminating the expense of setting up separate boards. This is especially significant, as the territorial boundaries of the separate States do not as a rule coincide with their economic interests. In the new division Prussia is allotted 66 boards, of which the Ruhr section alone is entitled to 10; Bavaria has 13; Saxony, 6; Thuringia, 6; Württemberg, 5; Baden, 4; Hesse, 3; Mecklenburg, 2; Bremen, 2; and Hamburg, Lubeck, Lippe, Waldeck, and Strelitz, 1 each.

Another important change in the system is that each new arbitration board must be presided over by an impartial chairman, appointed by the Government, whereas previously it was left to the members of the board to decide whether they should proceed alone, or with a chairman elected by themselves. The new boards, like the old ones, are made up of an equal number of representatives of capital and labor, but the old distinction between permanent and temporary members was dropped, and the new members are considered public officials only when summoned to a session by the impartial chairman. The latter, however, is a permanent Government official, appointed by the State after a conference with the representatives of the employers' and workers' organizations. This conference does not in any way limit the powers of the authorities to appoint a candidate of their own choice, unless the representatives of capital and labor agree on a person, in which case the Government is obliged to appoint to office the person agreed upon.

In addition to the arbitration boards, the Minister of Labor is empowered to appoint one permanent arbitrator for each economic district and special temporary arbitrators in each labor dispute, should the importance of the case warrant. Formerly the Minister of Labor himself arbitrated such disputes, but experience showed this to have been the cause for much dissatisfaction with the Government by one side or the other, hence the attempt to refer even the most important cases to an impartial body. Altogether 20 such arbitrators have been appointed for districts which have been selected primarily for their economic importance, which accounts for the great difference in size. Berlin has been made a district as have been the Ruhr (with the arbitrator's office in Dortmund) and the Rhineland (office in Cologne); Silesia has been divided into Upper Silesia (office in Beuthen) and Lower Silesia (office in Breslau), while the rest of Prussia has but two arbitrators, one for East Prussia (office at Gumbinnen) and one for Pomerania (office at Stettin).

Labor disputes have been divided into two distinct groups: (1) Group disputes (*Gesamte Streitigkeiten*) affecting whole industries or all the employees of a single plant; and (2) individual disputes (*Einzelne Streitigkeiten*) affecting the individual worker in a plant.

Only the first group of cases has been placed within the scope of the newly established impartial machinery, while the second class has been transferred to a different jurisdiction.

The duties of the arbitration boards and the arbitrators are, first, to mediate in the case of general collective agreements (*Tarifverträge*) when a whole industry is concerned, or in the case of works agreements (*Betriebsvereinbarungen*) when but a single plant is under consideration; in either case, they are to act only if there is no other special mediation agency provided for by a previous agreement or if

such agency has failed to bring about the desired results. It must here be emphasized that this impartial machinery has been established with the purpose, not so much to settle disputes or strikes which have already broken out as to bring about collective agreements which should prevent such occurrences. The boards act in a dispute when appealed to by one of the parties concerned or of their own accord if the gravity of the case warrants such action. There is no legal compulsion for either side to apply to the arbitration boards, although the by-laws of the A. D. G. B. (*Allgemeiner Deutscher Gewerkschafts Bund*), the central organization of the Socialist trade-unions, as well as of the other labor organizations, provide for arbitration in all cases where direct negotiations with the employers have failed. Only in the case of the most vital public utilities, such as the supply of water, gas, and electricity, are strikes and lockouts forbidden unless the dispute has been placed in the hands of an arbitration board for a decision.¹

The procedure of the boards or the arbitrator is as follows: First, the impartial chairman calls a conference of the two parties and attempts to bring them to an agreement without calling an official session of the board. An agreement concluded in this manner is in no way different from any other voluntary agreement concluded by direct negotiations. Should this effort of the chairman fail, it becomes his duty to organize an arbitration board consisting of two members from each party and presided over by himself. (If they deem it necessary, the arbitrators may call more than the prescribed number of members to serve on a board.) This board also sits as a mediation agency and only after the second effort to bring about a voluntary agreement between the parties has failed does the board make a proposition of its own, which, if accepted by both sides, becomes tantamount to a written contract. The presence of both parties at a session is not absolutely required; it is necessary only that a formal invitation be issued to both sides, and if one of them refuses to recognize the authority of the board and does not appear at the session, the board may proceed with the case and make a decision in the absence of that party. In either case, unless accepted by both sides or declared compulsory by the proper authorities (the arbitrators or the Ministers of Labor), the decision is not binding and the parties are left free to proceed as they please. It often happens, however, that in submitting the dispute to an arbitration board the parties agree beforehand to accept its decision, in which case the decision is, of course, binding.

The expenses of the arbitrators and the boards are carried by the Reich, but those of the boards are to be transferred to the separate States as soon as the planned redistribution of the incomes of the Reich and State governments has taken place.

The second group of labor disputes, involving individual employees and arising chiefly on the grounds set forth in the industrial regulation order of 1891 and the works council law of 1920, constituted the majority of the cases which the old arbitration boards were called upon to decide. To realize the benefits of such decisions in their favor, however, the individual workers were compelled to apply to a court for a writ of enforcement, so that practically each

¹ President's decree of Dec. 10, 1920.

case had to go before at least two bodies before its final disposition. The system was therefore both awkward and expensive and the new decree simplified it a great deal by completely transferring the jurisdiction over these cases from the arbitration board to the so-called labor courts. There are no real labor courts in Germany as yet, and the prospects for their establishment in the near future are very slight, but the name "labor courts" is now attached to the old industrial and commercial courts, which have been in existence in Germany since 1891. Both the industrial courts, which have jurisdiction over all the industrial workers and those salaried employees who receive a salary below a definite amount, and the commercial courts, which have jurisdiction over the greater part of the salaried employees, are organized very much in the same fashion as the arbitration boards. They consist of a chairman, usually a judge, appointed by the Government, and of eight jurors, four from each side, elected by the employers and the employees of the community in which the court is established. As in the case of the arbitration boards, no attorneys are allowed to plead before the labor courts and the parties concerned must be on hand to present their own case. In contrast, however, with the arbitration boards, the decisions of the labor courts are absolutely binding and enforceable and may be appealed only to the higher courts. The labor courts thus enjoy a clear advantage over the arbitration boards, and the transfer of the individual cases to their jurisdiction can not but lead to the satisfaction of all parties concerned, while the large economies to the Government are very obvious. The only permanent official of the courts is the chairman, who receives the regular salary of a judge, while the jurors are paid for their time of service only and at the rate they are receiving in their respective occupations.

The new system is much simpler than the old, and if it can be judged by its accomplishments during the short period of existence since November 1st, 1923, it also promises to be more efficient. At least in one instance the emergency law of October 13, 1923, led to a revision which not only curtailed to a very large extent the expenses of the Government, but actually resulted in an improvement upon the old system.

Labor Law of Jalisco, Mexico ¹

By ETHEL YOHE LARSON, OF THE U. S. BUREAU OF LABOR STATISTICS

TO GIVE effect to Article 123 of the Federal constitution of Mexico, the State of Jalisco enacted the labor law of August 13, 1923. This law covers such subjects as labor contracts, rights and obligations of the contracting parties, hours and wages, conciliation and arbitration, employers' organizations and trade-unions, strikes and lockouts, private employees, shop rules, apprentices, safety and hygiene regulations, workmen's compensation, and labor inspection.

¹This is the eighth of a series of articles on labor legislation in the Mexican States, the seven previous ones having been published in the December, 1922, August, September, November, and December, 1923, and the February and April, 1924, issues of the MONTHLY LABOR REVIEW. The labor law of Jalisco was received by this bureau too late to be included in the previous studies; it is handled topically as were the other State laws.

Contracts of Employment

EMPLOYMENT contracts are classified by the law as follows: (1) Individual or collective; (2) oral or written; (3) contracts for work by the day or by the job; (4) contracts for definite or indefinite periods.

In the following cases, the contract must be in writing: (1) All collective contracts; (2) contracts of partnership; (3) when the services are to be rendered in a factory or agricultural pursuit employing more than 25 workers; (4) when the services are to be rendered in a mine, irrespective of whether it is in the mine proper or in the reduction works (*hacienda de beneficio*); (5) when the services are to be rendered in banks, commercial establishments, or any other private enterprise; (6) when the work is to be performed at a camp which is more than 4 kilometers (2.5 miles) from a town.

All collective contracts shall be registered with the central board of conciliation and arbitration as well as with the secretary of the city council.

The following must be specified in all written contracts: (1) The nature of the contract, that is, whether it is individual or collective, for a definite or an indefinite period, or for a specified piece of work or by the day; (2) the name, nationality, age, sex, domicile, and civil status of the contracting parties, and the organization to which they belong; (3) the duration of the contract, if it is for a fixed period, specifying the date on which it is to begin; (4) the length of the working-day; (5) the salary or wages the laborer is to receive, and whether they are fixed by unit of time, or of work; (6) the place or places where the work is to be performed; (7) any other conditions, in conformity with the provisions of this law, agreed upon by the contracting parties. The contract shall be signed by the contracting parties before two witnesses. If the terms of the contract are not clear and precise and in consequence doubts as to its meaning arise, they shall be decided in favor of the workers.

Duration

The worker shall not be required to render any service not stipulated in the terms of the contract. If the contract does not clearly define the service to be rendered, only that which is compatible with the worker's strength, ability, profession, and condition may be required of him. If, after the expiration of the contract, the worker continues to render service, the contract will be considered extended indefinitely.

Termination

Contracts may be terminated (1) at the end of the contract period; (2) by mutual consent; (3) upon the death of either of the contracting parties; (4) upon the dissolution, liquidation, or bankruptcy of the employer; (5) upon the petition of either of the parties, when the contract was for an indefinite period, providing both parties have been notified in advance; (6) on account of the physical or moral incompetence of either party, provided this has been conclusively proved before the board; (7) upon the conclusion of the work for which the contract was made.

Grounds for discharge.—The following constitute justifiable grounds for the discharge of an employee upon application to the board of conciliation and arbitration: (1) When the worker does not render the service agreed upon; (2) when he reveals trade secrets; (3) when he causes loss to the employer's interests through negligence or disobedience; (4) when he misrepresents his qualifications, skill, etc.; (5) when he commits an immoral act or a penal offense during the performance of his tasks; (6) when he is habitually intoxicated; (7) when he refuses to render the agreed-upon service either during regular hours or as overtime in case of imminent danger or disaster, except when this service endangers his life; (8) when he causes considerable loss by careless misuse of tools. The employer may rescind the contract under any of the preceding circumstances.

When worker may quit.—A laborer may quit his employment for any of the following justifiable reasons: (1) If wages are not paid as stipulated in the contract; (2) if he or his family are maltreated by the employer or by his subordinates; (3) because of the commission of immoral acts by the employer in the shop or work place during the performance of the contract; (4) if, during the performance of the contract, the employer deliberately causes material injury to objects which belong to the worker or are in his care.

The worker may rescind the contract: (1) If the employer requires him to do work which he has not contracted to do or which is beyond his strength and ability; (2) if he fails to pay the stipulated wage at the time and in the form agreed upon; (3) if he fails to observe the legal requirements as to sanitation and health or to adopt adequate measures to prevent accidents in the use of machines and other instruments; (4) if he fails to adopt adequate measures to prevent occupational diseases or to heed just recommendations made by the workers; (5) if he fails to take every scientific precaution to prevent the spread of malarial or infectious diseases in mines, drainage systems, and undertakings in insanitary regions; (6) if he fails to abide by the regulation that "in all enterprises at least 80 per cent of the workers are to be Mexican," and that in "new industries for which the workers require special training, facilities must be provided for the national workers to acquire the necessary knowledge; and work is to be given by preference to workers who have served before, if their conduct has been good"; (7) if he requires a longer workday than the legal workday or shortens or abolishes the rest periods; (8) if he requires the employees to work at more distant points than the place specified in the contract or more than 4 kilometers (2.5 miles) from his residence; (9) if he violates the provisions of the law regarding the employment of women before and after childbirth and the employment of minors; (10) if he violates the provision regarding the obligatory rest days; (11) if he refuses to make advance payments in cases required by law.

Unlawful discharge.—An employer shall not discharge a worker because he joins a labor organization, takes part in a lawful strike, or makes a protest or justifiable claim against the employer either on his own account or as a representative of his trade organization.

Employer's liability.—If the employer discharges a worker without a justifiable reason, or if the latter quits the employment with a justifiable reason, the worker has a right to demand of the employer the payment of an indemnity equal to three months' wages, the con-

tract being automatically ended. This payment shall be made the same day or, at the latest, the day following the worker's separation from his work.

Verbal Contracts

The lack of a written contract, when such is prescribed by the law, does not deprive the worker of any of his rights under such contract, it being assumed that such lack is the fault of the employer, who will be deprived of the right of action against the worker to compel him to complete the contract.

Contracts for Employment Outside of Mexico

A contract for work outside of Mexico shall be authorized by the municipal authorities and viséed by the consul of the country to which the worker is going. The lack of such visé in unavoidable cases, to be proved before the respective municipal authority, shall not invalidate the contract. The cost of transporting the worker and his family to the place where he is to work, including sustenance, shall be borne by the contractor, without right to deduct the amount from the wages; and the contractor shall also give security in an equivalent amount for the worker's repatriation at the expiration of the contract.

Certain Provisions Void

The following provisions are declared not binding even though included in the contract: (1) Stipulations for an unreasonable workday; (2) provisions specifying a wage, which, in the judgment of the board of conciliation and arbitration, is not remunerative; (3) those providing for a longer period than one week before the payment of wages, or for payment of wages at stores, restaurants, cafés, canteens, etc., when the workers are not employed therein; (4) those involving, either directly or indirectly, an obligation to purchase articles of consumption in specified shops; (5) those permitting a retention of wages on the pretext of a fine; (6) those constituting a waiver of the worker's right to compensation for industrial accidents or occupational diseases, or of any right established by law for his aid and protection; (7) those contracting for the work of minors under 12 years of age; (8) those by which an employee assigns his wages to a third person. Persons violating the last-mentioned provision shall be fined from 10 to 200 pesos.

When Contracts are Void

Boards of conciliation and arbitration may annul labor contracts because of incompetence or error of either of the contracting parties. A contract void only because of lack of legal formalities, however, may be good if ratified or voluntarily complied with at any time.

Employers' and Workers' Organizations

EMPLOYERS and workers are granted the right to combine in defense of their respective interests. Registered employers' associations or trade-unions not of a political or religious character, whose by-laws have been approved by the members, whose establishment

has been reported to the Department of Labor and which have at least 10 members, except in industries where there are not as many as 10 establishments of the same class, shall be recognized as legal persons apart from their members. Subject to the same conditions, such organizations may group themselves into federations and confederations.

Collective Agreements

Collective agreements—i. e., agreements negotiated by employers and workers who are organized in accordance with the labor law—are governed, as regards duration, provisions, and termination, by the laws relating to contracts in general.

Coverage.—Collective agreements will include and be binding upon those who join the respective organizations after the contract has been made and registered, but such new members must be informed of the terms of the contract when joining. Such agreements will also apply to employers or workers who do not belong to the respective organizations but have met with them to conclude an agreement, and to those who contract through attorneys, the power of attorney being in writing.

Members of the respective employers' and workers' organizations are responsible for performing the contract. Organizations are responsible for violations of the collective contracts made by them, but their representatives or directors shall be responsible only in cases of violations committed by themselves individually.

Labor Disputes

THE law recognizes the right of workmen to strike and of employers to suspend work in defense of their interests.

Strikes

When lawful.—Lawful strikes are those for the purpose of securing a "balance between the different agents of production, harmonizing the rights of labor with those of capital."

When unlawful.—Unlawful strikes are (1) those in which a majority of the strikers engage in violent acts against person or property; (2) those in establishments and services upon which the Government depends in time of war.

Strikes in public services.—Workers employed in the public services are required to give notice to the board of conciliation and arbitration 10 days in advance of the date set for a strike.

Procedure.—When a strike is imminent the workers or their representatives shall appear before the board of conciliation and arbitration and request its intervention to attempt a settlement. If this fails, the workers shall give notice to the employers and to the board 10 days before the date set for the strike.

Pending settlement of disputes.—Employers are prohibited from suspending work or dismissing workers during the period of conciliation and arbitration. The workers are also prohibited from quitting before the date set for the strike.

Hiring of strikebreakers prohibited.—Pending the settlement of a lawful strike, employers are prohibited from hiring other workers to replace those on strike. If, however, the workers refuse to resume

their work in three days following the decision of the board the employer may hire other workers without being obligated to indemnify the former workers.

Penalties.—If the workers declare a strike without first attempting conciliation and without previously having notified the board and the employer of their intention, the latter may hire other workers to replace the strikers without contracting any liability. The employer who discharges a worker for having taken part in a lawful strike shall be required either to fulfill the contract or to pay the worker three months' wages as indemnity, at the choice of the latter, provided the worker's attitude and his part in the strike justifies this. Strikers will be liable for crimes and offenses committed during the strike under the provisions of the Penal Code.

Shutdowns

When lawful.—Shutdowns will be considered lawful when overproduction necessitates the suspension of operations in order to maintain prices at a profitable level, the previous approval of the board of conciliation and arbitration being required. When necessary to curtail operations because of overproduction or of scarcity of raw materials employers may reduce the hours or days of labor, and in agreement with their workers or their representatives, may distribute the available work equally among the whole force.

When unlawful.—Shutdowns will be unlawful in the following cases: (1) For the purpose of unlawfully dismissing workers or representatives of labor organizations; (2) to avoid granting workers' petitions, based on the guaranties and rights given by the labor law; (3) to avoid complying with the awards of boards of conciliation and arbitration, or paying the minimum wage or share in profits fixed by special commissions.

Reemployment of former workers.—Former workers are to have preference in employment after a lawful shutdown. To this end employers must give two weeks' notice of their intention to resume operations.

Settlement of Labor Disputes

CHAPTER VII of the law provides that differences and disputes between employers and workers shall be submitted for settlement to the local board of conciliation in a municipality, which is subordinate to the central board of conciliation and arbitration.

Organization of Conciliation Boards

Local boards.—The municipal boards of conciliation shall consist of three members, one representative each of employers and workers, with the same number of alternates elected by the group which they represent, and one Government representative appointed by the city council. Members are elected for one-year periods and may be reelected. They can be removed, the employer and labor members by those whom they represent and the Government representative by the mayor or the city council. The former are elected during the first five days of December in general assemblies of the employers or workers or by their respective organizations. If they are not elected by a specified date the city council shall appoint provisional representatives to act until the official representatives are duly elected.

Central board.—The central board of conciliation and arbitration shall be composed of three representatives each of employers and workers, with their alternates, and one representative of the Government appointed by the executive. These representatives shall be elected during the last two weeks in December of each year and shall take office the first of January following, notifying the city council and the department of labor thereof. Except for the Government representative, the members of the central board are elected in general assemblies by the employers and workers of the State capital. If the employer and labor members are not named by a specified date the governor shall appoint them, but this does not deprive the employers and workers of the right to elect their members later.

Powers and Duties of Boards

Local boards.—Among the powers and duties of the municipal boards are the following: (1) To study and attempt to settle by conciliation disputes between capital and labor which come under their jurisdiction in matters pertaining to labor contracts, the workday, responsibility for accidents, wages, profit sharing, occupational diseases, strikes, shutdowns, etc.; (2) if conciliation fails, to arbitrate such conflicts and differences; (3) to establish in each municipality a commission to inspect private enterprises, a certain zone being assigned to each commission; (4) to draw up shop regulations in conjunction with the Department of Labor; (5) to make monthly reports to the Department of Labor concerning the activities of the board; (6) to consult with the Department of Labor on technical matters relating to their duties; (7) any other duties fixed by the laws.

Central board.—The central board has the following powers and duties: (1) To supervise the work of the local boards; (2) to have jurisdiction over the special commission on minimum wage and profit sharing; (3) to see that such a commission is formed in each municipality; (4) to study the objections of employers and workers against the fixing of a standard minimum wage and a share in the profits; (5) to make monthly reports to the Department of Labor concerning the economic operation of the standard minimum wage and the profit-sharing rates among laborers; (6) to study and decide labor disputes which affect all industries in the State or two or more municipalities; (7) any other duties assigned to it by law.

Procedure

The employers or the workers, acting themselves or by attorney or agent, may bring any matter in dispute before the municipal board of conciliation and arbitration, by either oral or written complaint. After notice to the other party, both parties shall submit evidence, the proceedings being informal and 96 hours being allowed for such investigation of the case. The board shall then endeavor to effect a conciliation. If the parties reach an agreement, it shall be reduced to writing and be binding upon them. If no agreement is reached at the end of 72 hours, the board shall resort to arbitration, 48 hours being allowed therefor. When a controversy brought before a local board affects two or more municipalities, the case shall be transferred to the central board of conciliation and arbitration.

If employer defendants refuse to submit to arbitration, the employment contract will be terminated and the employer required to pay the claim and damages equal to three months' wages, while if the workers refuse to arbitrate the contract will be terminated.

Protests against a standard minimum wage or profit-sharing rate may be presented to the central board of conciliation or arbitration by any employer or worker, or organization thereof, affected thereby, within 20 days of the publishing of such rate. Eight days are allowed for the presentation of evidence and arguments to the court, which shall render its decision either confirming or modifying the rate within three days thereafter.

In controversies affecting all the industries in the State, or two or more municipalities, eight days shall be allowed for presentation of evidence to the central board of conciliation and arbitration, and six days for effecting a conciliation.

Decisions of the central and municipal boards, which shall be by majority vote, shall state the reasons on which they are based and shall set forth the award in specific terms and shall be in writing.

Hours of Labor and of Rest

THE law establishes the maximum 8-hour day as the legal working-day, seven hours as the maximum for nightwork, and seven and one-half hours for the "mixed day," i. e., one in which the working period includes both day and night work. Daywork is defined as being work done between 6 a. m. and 6 p. m., and nightwork as that done between 6 p. m. and 6 a. m. The workday begins the moment the employee enters the place of employment agreed upon in the contract.

The workday shall not be continuous, but the employees shall be granted at least one hour a day for meal time. The workers may relinquish this privilege if they so desire.

Overtime work, i. e., all work in excess of the maximum working-day, is permitted only under extraordinary circumstances, when there is grave danger or because of force majeure, and by a mutual agreement between the employers and workers. Overtime work shall not exceed three hours per day, nor be required on more than three consecutive days.

The law stipulates that for six days of work there must be at least one day of rest. The first of May and the 16th of September of each year shall be obligatory holidays as well as any other days so declared by Congress in decree No. 1895.

In continuous industries the hours shall be so regulated as to give the workers the obligatory rest days provided for by this law. The mayor of each municipality shall designate those drug stores which shall keep open, by turns, on obligatory rest days to attend to local needs.

The provisions concerning the legal working-day and the obligatory rest days shall apply to employees in commercial establishments, offices, and departments and in general all employees in private establishments or enterprises. These provisions also apply to restaurants, pastry shops, ice plants, hotels, and other similar undertakings.

Wages

WAGES are defined as the pecuniary remuneration paid by the employer to the employee or laborer by virtue of the employment contract. In no case may the wage be less than that fixed as the minimum wage in the manner provided by this law. In determining wages the quantity and quality of the services rendered and whether the work is done during the day or night shall be taken into consideration. Wages for nightwork should be 10 or 20 per cent more than for daywork. All wages must be paid in legal currency, and not in counters, promissory notes, cards, or any other substitute for money. For violating this provision a fine of from 50 to 500 pesos will be imposed. All wages must be paid at regular periods agreed upon in the contract, not to exceed a week in the case of laborers and two weeks in the case of employees or domestic servants. For debts contracted by the worker he alone can be held responsible; in no case may members of his family be held responsible, nor can there be demanded for such debts sums in excess of the worker's wages for one month. Equal compensation shall be paid for equal work, no discrimination being made because of sex or nationality. Wages must be paid by the employer or his representative to the worker or to some one designated by the worker, and such payment must be made at the place of employment. Wages may not be attached, discounted, or reduced, nor may the worker's household furniture, wearing apparel, books, or tools be attached. The payment of wages to minors and to married women is valid. Employers may not retain the wages of an employee on the pretext of a fine.

If the wages of a worker are determined by the quantity, quality, or measure of his work or by the application of some rate, he shall have the right to examine and verify such computations either personally or through a representative. Necessary overtime work shall be paid for at double the regular rate. Employers may not charge interest on wages advanced to the worker. Workers shall not be paid wages for holidays or for obligatory rest days unless the employer permits them to work on such days. Employers shall pay half the regular wages when the employees are obliged to suspend work on account of defects in machinery, tools, etc., due to ordinary usage.

Minimum Wage

By a minimum wage is understood a wage sufficient, according to the economic conditions in the community, to pay the cost of food, clothes, education, and ordinary recreation of the worker, considered as the head of a family. Employers are prohibited from paying to employees of either sex, wages less than the minimum, and any employer violating this provision shall be punished by a fine of from 50 to 500 pesos and required to reimburse the worker the amount illegally withheld. Employers shall give the workers a share of the profits of the business.

The minimum wage and also the share of the profits to be given the workers shall be fixed by a special municipal minimum wage commission. A municipal wage commission shall consist of one representative of the workers and one of the employers for each industry in the community, such representatives to be elected every three

years, on the first day of December, either in general assemblies or through their respective organizations. The commission shall meet as often as necessary, but at least once a year. After organizing it shall proceed to obtain information as to the cost of articles of necessity, wages, supply and demand of labor in the community, and any other necessary data. All factories, commercial enterprises, labor bureaus, and agricultural and industrial undertakings are required to provide gratuitously any information requested by the commission and to make any investigation needed for this purpose. A fine of 20 pesos will be imposed for failure to comply with this provision. After five days of investigation the commission, by a majority vote, shall fix the minimum wage. Either the employer or the workers may appeal from the decision of the municipal board to the central board of conciliation and arbitration within 20 days of its publication. Decisions not appealed from shall have the force of law in the municipality. The minimum wage shall be revised from time to time after study of the economic conditions in the community.

Woman and Child Workers

MINORS between 12 and 16 years of age, irrespective of sex, shall not be required to work more than 6 hours daily. They shall not be employed for dangerous or unhealthful work, nor for night work in industrial establishments. In commercial establishments they shall not work after 10 p. m.

Women shall not be employed for dangerous or unhealthful work nor for night work in industrial establishments. In commercial establishments they shall not work after 10 p. m. Women may not be employed where intoxicating liquors for immediate consumption are sold.

During three months before childbirth, women may not perform work which requires considerable physical exertion or which injures in any way the health of the mother or the unborn child. For 30 days after childbirth women shall not be required to work but shall receive their entire wage, keep their employment, and be entitled to all their contractual rights. They may not return to work until examined by a physician. During the period of lactation women employees shall have two additional rest periods of half an hour each during which they may nurse their children. In factories and workshops where women are employed, suitable rooms, in charge of special attendants, shall be provided where nursing women may leave their children.

Hygiene and Safety

A SITE selected for a factory or workshop must be approved by the sanitary authorities and meet the requirements of the sanitary code, and not be damp, dangerous, or unhealthful. Factories, workshops, and like buildings shall be constructed in accordance with the requirements of the sanitary code. Workrooms therein shall be provided with proper and sufficient means of ventilation so that each employee shall have at least two square meters (2.39 square yards) of floor space and 8 cubic meters (10.46 cubic yards) of air space. The ventilation must be so regulated as to prevent drafts from endangering the health or comfort of the employees. The air shall be renewed by means of natural or artificial ventilation, the velocity of the air current to depend upon the number of employees,

the extent of the work, and any natural emanations, as for instance in the mines. Each operator shall have at least 140 cubic meters of air each hour.

If, in the course of the business carried on in any workroom of a factory, gases, injurious dust or other impurities are generated or released in quantities tending to injure the health of the employees, proper devices to remove such impurities shall be provided. If due to the nature of the industry, smoke is given off, pipes or chimneys shall be maintained for its disposal, so as to prevent fire and its becoming a nuisance to the neighborhood, and if necessary, the employer will be obliged entirely to eliminate the smoke. If natural light in factories and workshops does not suffice, artificial illuminants, preferably electricity, shall be used. Great care shall be taken in the use of lamps in order to prevent fires.

The roofs and walls of a factory should be well constructed so as to prevent sudden changes in temperature in the building. Floors shall be waterproof and smooth. Inflammable substances may be manufactured only in buildings of fireproof construction, and storage rooms containing raw materials and the finished product shall be separate from workrooms in which inflammable articles are manufactured, wherein electric lights or safety lamps should be used exclusively. Entrances to factories shall be large, and an adequate number of doors be provided to permit immediate egress in the event of a fire or other emergency. All doors shall open outward. All establishments shall provide and maintain a fire-extinguishing apparatus and plenty of water with sufficient pressure. Waste water from factories and workshops, unless purified by a special process, may not be thrown into channels of water used for domestic and agricultural purposes, but separate conduits must be provided. There shall be provided in all factories and workshops a sufficient number of clean and well-ventilated toilets, at least one for every 30 persons, and separate toilets for each sex. The workers shall be provided with dressing rooms equipped with washstands and good drinking water.

Prevention of Accidents

In factories and workshops machines shall be so arranged, in large rooms, as to avoid danger to the workers. They shall be firmly placed on a solid foundation away from the partition walls, in order to avoid transmitting vibrations to the adjoining walls. Dangerous machines and those run by electricity shall bear conspicuous placards, marked "Danger." In order to install boilers, motors, or cables for light or for motive power, a permit must be obtained from the municipal authority, under the provisions of the sanitary code. Factories in which inflammable liquids or explosive substances are manufactured shall comply absolutely with the provisions of the sanitary code. Great care must be taken to maintain the machines and equipment in good condition so as to avoid danger. Establishments must be cleaned before work begins and under no circumstances shall garbage or rubbish be allowed to stand on the premises. All workshops, factories, offices, business stores, and industrial establishments shall provide sanitary cuspidors and post a conspicuous notice stating the danger of careless expectoration. Drinking water shall be kept in tanks protected from the heat and from contamination. The use of a common drinking cup is prohibited.

Special Regulations Required in Certain Industries

Definite regulations, in addition to those mentioned above, must be observed by certain industries the more important of which are the following: All chemical, pharmaceutical, and bacteriological laboratories; factories producing gunpowder, cartridges, nitric, sulphuric, and carbonic acids; manufactories of poisonous and alcoholic substances; and printing and engraving shops. The regulations are as follows: (1) Acids shall be kept in well-constructed containers, while explosive and poisonous substances shall be stored in safety boxes labeled "Poison" or "Danger." (2) In those industries likely to cause occupational diseases the company physician is to keep close watch for the initial symptoms of such diseases, and upon their appearance in any workman, such workman is to be taken off that work and given prompt treatment. (3) Establishments are required to provide and maintain adequate and convenient wash rooms or washing facilities. (4) The employer shall furnish the workers, gratuitously, work clothes, caps, gloves, eyeglasses, masks, and certain pharmaceutical preparations. (5) Poisonous gases emitted in these establishments shall be drawn off by modern scientific means, and if the sanitary authority decides this is impossible great care shall be taken to maintain respirable air. (6) Industries using hides, horsehair, wool, old rags, etc., as raw materials must first have them disinfected. Workers whose hands are injured in any way shall keep them protected. (7) In the paper and pasteboard industries, special places shall be designated for the deposit of raw materials, from which they may be removed only after they have been moistened and placed in closed bags or boxes with lids. The workers who do this must be protected by caps, work clothes, and cotton respirators, and must keep their hands and faces clean. (8) In the glass-bottle industry the use of mechanical means for bottle blowing is obligatory. If, however, in the judgment of the sanitary authority, the establishment can not afford to use the mechanical process, the glass blowers' pipe may be used, but by only one person after it has been disinfected and after the doctor has inspected the operator's mouth. (9) In the tobacco industry pregnant women and nursing mothers shall wear work clothes and cotton respirators. (10) In those industries in which employees work under high atmospheric pressure and in poison-laden air they shall be examined carefully by the doctor. The workday in such industries shall be shorter than the ordinary workday, depending upon the intensity of the pressure. Before employees go into corridors, shafts, or conduits in which dangerous atmospheric conditions are thought to be present, the air should be tested with a bird or mouse. (11) In the repair of electric cables and telephones, the construction of buildings, sewers, tunnels, the felling of trees, etc., employers shall provide the workers with the necessary equipment for their protection and safety.

Workers suffering with infectious diseases are not to be employed. Disputes arising over this provision shall be decided by the local sanitary authority. Factories and workshops shall be disinfected once a year and whenever, in the judgment of a doctor or the sanitary authority, there is any suspicion of the appearance of an infectious disease. A worker suffering with an infectious disease shall be

isolated and not allowed to return to work until all danger of infection has disappeared. Industrial establishments shall give each worker a printed notice indicating the care to be taken to avoid accidents in the handling of machines, the employees being obliged to comply with such instructions.

The company physician shall in addition to his other duties, act as aid to the sanitary authority and discharge the duties imposed upon him by the sanitary code. Employers who employ more than 100 workers shall furnish comfortable and sanitary dwellings for their workmen, for which they may charge annual rents not exceeding 6 per cent of the assessed value of the property. Employers shall also provide schools where there is no other school within a radius of 2 kilometers, provided the number of pupils exceeds 25. The school rooms must be sufficiently large and properly ventilated and lighted.

In work in coal mines, quarries, oil wells, and similar classes of work the storage, transportation, and handling of explosives are subject to the police regulations.

All mining companies and enterprises shall post clear and concise warning notice in all dangerous places in the mines in order to prevent accidents to the workers.

The mayor shall impose fines varying from 50 to 500 pesos for failure to comply with the provisions of this law concerning sanitation.

Shop Regulations

SHOP regulations are required in factories, workshops, and industrial establishments, but such regulations must be approved by the Department of Labor before they can be enforced. These regulations shall contain a statement of the hour of beginning and of stopping work, of the time allotted for rest periods, for the noonday meal and for the compulsory rest days, of the time and form of assigning materials and receiving work done outside of the establishment, and of the names of the representatives of the employer in the management and inspection of the work and of the representatives of the workers' interests. The rights and obligations of the managing personnel and inspection officers are to be clearly defined, as well as the rights and obligations of the workers' representatives.

A schedule of the wages fixed by the special minimum wage commission shall be included in the shop rules, as well as warnings against accidents and instruction in first aid. Any other provisions for the better execution of the work may be added to the regulations, but the provisions of the regulations must agree with the terms of the individual and collective contracts and with the labor laws.

The regulations shall be printed or legibly written and posted in a conspicuous place, and the workers are not to be denied the privilege of obtaining copies.

The central board of conciliation and arbitration shall be notified in writing of any violations of the regulations, either by the worker, the employer, or his representatives. After the violation has been proved the board shall fix the punishment therefor.

Workmen's Compensation

THE employer is civilly liable for industrial accidents and occupational diseases suffered by his employees or workers when they arise out of, or in course of, the employment.

Employments Covered

The compensation law covers work in factories, workshops, industrial establishments where mechanical power is used, mining and quarry operations, all construction work, manufacturing and repairing of machinery, metallurgical works, foundries, gas and electric plants, telephone and telegraph enterprises, establishments manufacturing or using poisonous, unhealthful, explosive, or inflammable substances, and agricultural pursuits.

Injuries Covered

An industrial accident is defined as an injury arising out of or in the course of employment, proceeding from an unforeseen event from an outside force, which prevents the worker from continuing his work. An occupational disease is defined as an illness caused by an agent or circumstance inherent in the work or industry.

Injuries are not compensable when they are due to force majeure, or to the employee's imprudence or willful misconduct, provided this is fully proved.

Compensation Benefits

In determining the employer's liability the wages fixed in the labor contract, or, if none are so fixed, those fixed by the special minimum wage commission shall be taken into consideration.

The compensation scale is based upon the earnings of the injured employee during the year preceding the accident. When, due to custom or to the nature of the business, the work lasts for a period less than a year, or when the worker has been employed less than a year, the scale shall be based upon the average weekly earnings. If the employee has not worked a week, his average daily wages shall be used as the base.

Death

If the industrial accident causes immediate death, or death follows the illness produced by the accident, the employer shall pay, in addition to funeral expenses, which are not to exceed 50 pesos, the following compensation: (a) To the wife with or without children, an amount equal to one year's wages of the deceased; (b) to minor children without father or mother an amount equal to one year's wages; (c) to the husband of the woman worker unable to support himself or his minor children, an amount equal to one year's wages; (d) to the parents of the worker, if they have been dependent upon the deceased, an amount equal to nine months' wages, this amount to be increased to one year's wages if there are neither spouse nor descendants. If death results from an occupational disease, the employer shall pay, in addition to funeral expenses, which are not to exceed 50 pesos, the following compensation: (a) To the wife, if there are no children, an amount equal to three months' wages of the deceased; (b) to the wife with minor children an amount equal

to six months' wages; (c) to minors having neither father nor mother an amount equal to six months' wages; (d) to the parents of the worker if they have been dependent upon him an amount equal to four months' wages, this amount to be increased to six months' wages if there are neither spouse nor descendants.

Permanent Total Disability

An employee who is permanently and totally disabled as the result of an industrial accident or occupational disease shall receive compensation equivalent to one year's wages.

Permanent Partial Disability

In cases of permanent partial disability resulting from an industrial accident or occupational disease the employer shall pay an amount equal to six months' wages.

Temporary Disability

For temporary disability employers are required to pay employees their full wages until they are able to return to work, provided the disability does not last longer than six months. If it exceeds this time, permanent disability benefits shall be awarded to the employee.

Medical and Pharmaceutical Attention

In addition to the compensation benefits described above, employers are required to furnish medical and pharmaceutical attention for employees until they are well.

Security of Payments

Employers are allowed to insure their risks with insurance companies or mutual aid societies at their own expense, provided these companies pay, in case of accident, the amount specified in the law or the employer pays the difference between the compensation and the amount of the policy.

Accident Reporting

Employers are required to report accidents to the mayor within 24 hours under a penalty of from 50 to 100 pesos. In such report the employer shall state the names and residences of the injured person or persons and of the witnesses and attach a medical certificate stating the condition of the injured person and the probable consequences of the accident. The injured employee or his representatives shall also make a report. If the medical report does not satisfy either of the parties, a physician shall be designated who shall examine the injured worker and report on the case in question.

Special Provisions

In case of the transfer or sale of a business the owner shall notify his successor of his obligations toward the workers under the provisions of this law and have included in the contract of transfer or sale all such agreements theretofore entered into, it being understood that the parties shall be jointly responsible for such previous agreements.

Any agreement made, either secretly or openly, for the purpose of evading liability for industrial accidents, and any agreement which is contrary to the provisions of this law, shall be invalid. Employers violating this provision shall be fined 500 pesos for the first offense and 1,000 pesos for the second offense, to be paid to the injured employee.

If an employee suffering from an occupational disease refuses to be treated by the company physician, he may select another at the company's expense. In all cases of claimed occupational disease the employer has a right to designate another physician, who in association with the patient's physician shall follow the progress of the disease and decide as to its existence and whether or not it was contracted in the establishment. If the two physicians disagree, the board of conciliation and arbitration shall appoint a third physician.

If an employee suffering from an occupational disease refuses treatment recommended by the physician, the employer must report this fact to the judicial authority and to the board of conciliation and arbitration. If an employee suffering with an occupational disease dies, the attending physician shall issue a certificate stating whether the death was the result of the occupational disease or of some other illness.

Time for Claim

A claim for compensation shall be made within one year after the date of the accident.

PRICES AND COST OF LIVING

Retail Prices of Food in the United States

THE following tables are based on figures which have been received by the Bureau of Labor Statistics from retail dealers through monthly reports of actual selling prices.¹

Table 1 shows for the United States retail prices of food, April 15, 1923, and March 15 and April 15, 1924, as well as the percentage changes in the year and in the month. For example, the price per quart of fresh milk was 13.6 cents in April, 1923; 13.9 cents in March, 1924, and 13.8 cents in April, 1924. These prices show an increase of 1 per cent in the year and a decrease of 1 per cent in the month.

The cost of the various articles of food² combined show a decrease of 1 per cent April 15, 1924, as compared with April 15, 1923, and a decrease of 2 per cent April 15, 1924, as compared with March 15, 1924.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, APRIL 15, 1924, COMPARED WITH APRIL 15, 1923, AND MARCH 15, 1924

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Apr. 15, 1924, compared with—	
		Apr. 15, 1923	Mar. 15, 1924	Apr. 15, 1924	Apr. 15, 1923	Mar. 15, 1924
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Sirloin steak	Pound	37.9	38.9	39.6	+4	+2
Round steak	do	32.3	33.1	33.7	+4	+2
Rib roast	do	27.8	28.6	29.0	+4	+1
Chuck roast	do	19.7	20.6	20.9	+6	+1
Plate beef	do	12.7	13.3	13.3	+5	0
Pork chops	do	28.4	26.9	28.7	+1	+7
Bacon	do	39.1	36.3	36.2	−7	−0.3
Ham	do	45.1	44.0	44.4	−2	+1
Lamb, leg of	do	36.2	37.1	38.8	+7	+5
Hens	do	36.1	35.9	36.1	0	+1
Salmon, canned, red	do	31.2	31.1	31.1	−0.3	0
Milk, fresh	Quart	13.6	13.9	13.8	+1	−1
Milk, evaporated	15-16 oz. can	12.2	12.1	11.8	−3	−2
Butter	Pound	57.3	58.0	50.1	−13	−14
Oleomargarine	do	29.1	30.6	30.2	+4	−1
Nut margarine	do	27.5	28.9	28.5	+4	−1
Cheese	do	36.3	36.7	35.5	−2	−3
Lard	do	17.5	17.5	17.2	−2	−2
Vegetable lard substitute	do	22.6	24.5	24.5	+8	0
Eggs, strictly fresh	Dozen	34.4	34.8	32.1	−7	−8
Bread	Pound	8.7	8.7	8.7	0	0
Flour	do	4.9	4.6	4.6	−6	0
Corn meal	do	4.0	4.4	4.4	+10	0
Rollod oats	do	8.8	8.8	8.8	0	0
Corn flakes	8-oz. pkg	9.7	9.7	9.7	0	0

¹ In addition to monthly retail prices of food and coal, the bureau secures prices of gas and electricity from each of 51 cities. These prices are published at quarterly intervals in the MONTHLY LABOR REVIEW. Retail prices of dry goods were published quarterly until November, 1923.

² The following 22 articles, weighted according to the consumption of the average family, have been used from January, 1913, to December, 1920: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea. The remainder of the 43 articles shown in Tables 1 and 2 have been included in the weighted aggregates for each month beginning with January, 1921.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, APRIL 15, 1924, COMPARED WITH APRIL 15, 1923, AND MARCH 15, 1924—Concluded

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Apr. 15, 1924 compared with—	
		Apr. 15, 1923	Mar. 15, 1924	Apr. 15, 1924	Apr. 15, 1923	Mar. 15, 1924
		Cents	Cents	Cents		
Wheat cereal	28-oz. pkg.	24.6	24.3	24.3	−1	0
Macaroni	Pound	19.8	19.5	19.6	−1	+1
Rice	do.	9.4	9.7	9.8	+4	+1
Beans, navy	do.	11.4	9.9	9.8	−14	−1
Potatoes	do.	2.5	2.8	2.8	+12	0
Onions	do.	6.5	5.9	5.9	−9	0
Cabbage	do.	8.4	6.2	7.1	−15	+15
Beans, baked	No. 2 can	13.0	12.8	12.8	−2	0
Corn, canned	do.	15.4	15.8	15.8	+3	0
Peas, canned	do.	17.5	18.0	18.0	+3	0
Tomatoes, canned	do.	12.9	12.9	12.9	0	0
Sugar, granulated	Pound	10.6	10.4	9.9	−7	−5
Tea	do.	69.2	70.9	70.9	+2	0
Coffee	do.	38.0	40.8	41.8	+10	+2
Prunes	do.	19.7	17.8	17.5	−11	−2
Raisins	do.	18.0	15.7	15.5	−14	−1
Bananas	Dozen	36.6	39.0	36.2	−1	−7
Oranges	do.	50.2	38.3	40.2	−20	+5
All articles combined ¹					−1	−2

¹ See note 2, page 37.

Table 2 shows for the United States average retail prices of specified food articles on April 15, 1913, and on April 15 of each year from 1918 to 1924, together with percentage changes in April of each of these specified years, compared with April, 1913. For example, the price per pound of potatoes was 1.5 cents in April, 1913; 2.2 cents in April, 1918; 3.1 cents in April, 1919; 9.1 cents in April, 1920; 2.3 cents in April, 1921; 2.9 cents in April, 1922; 2.5 cents in April, 1923; and 2.8 cents in April, 1924.

As compared with the average price in April, 1913, these figures show the following increases: 47 per cent in April, 1918; 107 per cent in April, 1919; 507 per cent in April, 1920; 53 per cent in April, 1921; 93 per cent in April, 1922; 67 per cent in April, 1923; and 87 per cent in April, 1924.

The cost of the various articles of food combined showed an increase of 44 per cent in April, 1924, as compared with April, 1913.

RETAIL PRICES OF FOOD

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TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, APRIL 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH APRIL 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on Apr. 15—								Per cent of increase (+) or decrease (—) Apr. 15 of each specified year compared with Apr. 15, 1913.							
		1913	1918	1919	1920	1921	1922	1923	1924	1918	1919	1920	1921	1922	1923	1924	
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.								
Sirloin steak	Pound	25.5	36.6	43.7	43.2	40.0	36.4	37.9	39.6	+44	+71	+69	+57	+43	+49	+55	
Round steak	do	22.2	34.5	40.5	39.9	35.6	31.4	32.3	33.7	+55	+82	+80	+60	+41	+45	+52	
Rib roast	do	20.0	29.3	34.6	33.5	30.4	27.3	27.8	29.0	+47	+73	+68	+52	+37	+39	+45	
Chuck roast	do	16.2	25.5	29.4	26.6	22.4	19.5	19.7	20.9	+57	+81	+64	+38	+20	+22	+29	
Plate Beef	do	12.2	19.9	22.6	19.0	15.4	13.0	12.7	13.3	+63	+85	+56	+26	+7	+4	+9	
Fork Chops	do	21.6	35.6	41.4	43.2	37.1	33.0	28.4	28.7	+65	+92	+100	+72	+53	+31	+33	
Bacon	do	26.8	49.5	57.2	51.6	44.4	39.7	39.1	36.2	+85	+113	+93	+66	+48	+46	+35	
Ham	do	26.5	44.6	52.9	53.6	49.3	50.7	45.1	44.4	+68	+100	+102	+86	+91	+70	+68	
Lamb	do	20.2	35.3	39.9	43.0	34.6	38.5	36.2	38.8	+75	+98	+113	+71	+91	+79	+92	
Hens	do	22.2		43.0	47.8	43.1	37.8	36.1	36.1		+94	+115	+94	+70	+63	+63	
Salmon (canned), red	do		129.5	132.2	137.8	38.4	32.4	31.2	31.1								
Milk, fresh	Quart	8.9	13.2	15.0	16.3	14.9	12.7	13.6	13.8	+48	+69	+83	+67	+43	+53	+55	
Milk evaporated	(?)			15.0	14.4	14.6	11.1	12.2	11.8								
Butter	Pound	40.4	50.7	71.3	76.1	55.6	45.2	57.3	50.1	+25	+76	+88	+38	+12	+42	+24	
Oleomargarine	do			39.2	43.2	32.4	27.7	29.1	30.2								
Nut margarine	do			35.2	36.1	29.1	26.9	27.5	28.5								
Cheese	do	22.0	34.1	41.9	42.8	37.3	32.1	36.3	35.5	+55	+90	+95	+70	+46	+65	+61	
Lard	do	15.8	33.1	35.3	30.1	18.4	16.9	17.5	17.2	+109	+123	+91	+16	+7	+11	+9	
Vegetable lard substitute	do			33.4	37.5	23.1	22.1	22.6	24.5								
Eggs, strictly fresh	Dozen	25.2	42.5	49.3	52.8	34.3	31.7	34.4	32.1	+69	+96	+110	+36	+26	+37	+27	
Bread	Pound	5.6	9.8	9.8	11.2	10.3	8.7	8.7	8.7	+75	+75	+100	+84	+55	+55	+55	
Flour	do	3.3	6.6	7.2	8.1	5.9	5.3	4.9	4.6	+100	+118	+145	+79	+61	+48	+39	
Corn meal	do	2.9	7.1	6.0	6.5	4.6	3.9	4.0	4.4	+145	+107	+124	+59	+34	+38	+52	
Rollod oats	do			8.4	10.4	10.0	8.7	8.8	8.8								
Corn flakes	(?)			14.0	14.1	12.8	10.1	9.7	9.7								
Wheat cereal	(?)			25.0	29.9	29.8	25.9	24.6	24.3								
Macaroni	Pound			19.3	20.3	20.9	20.0	19.8	19.6								
Rice	do	8.6	12.1	13.4	18.6	9.2	9.4	9.4	9.8	+41	+56	+116	+7	+9	+9	+14	
Beans, navy	do		18.0	12.1	11.8	8.1	9.3	11.4	9.8								
Potatoes	do	1.5	2.2	3.1	9.1	2.3	2.9	2.5	2.8	+47	+107	+507	+53	+93	+67	+87	
Onions	do		3.3	6.9	10.1	3.9	13.8	6.5	5.9								
Cabbage	do			9.1	9.2	5.1	5.3	8.4	7.1								
Beans, baked	(?)			17.7	16.8	14.9	13.1	13.0	12.8								
Corn, canned	(?)			19.2	18.5	16.3	15.6	15.4	15.8								
Peas, canned	(?)			19.0	19.0	17.8	17.8	17.5	18.0								
Tomatoes, canned	(?)			15.9	15.1	11.5	13.7	12.9	12.9								
Sugar, granulated	Pound	5.4	9.1	10.6	20.2	9.7	6.7	10.6	9.9	+69	+96	+274	+80	+24	+96	+83	
Ten	do	54.3	63.9	69.7	73.3	70.4	67.7	69.2	70.9	+18	+28	+35	+30	+25	+27	+31	
Coffee	do	29.8	30.1	38.5	49.1	36.6	35.7	38.0	41.8	+1	+29	+65	+23	+20	+28	+40	
Prunes	do		16.6	21.9	28.4	19.5	20.0	19.7	17.5								
Raisins	do		15.1	16.3	26.9	31.3	24.4	18.0	15.5								
Bananas	Dozen			37.6	41.7	40.9	36.1	36.6	36.2								
Oranges	do			55.5	64.6	44.4	61.1	50.2	40.2								
All articles combined ⁶										+57	+85	+115	+55	+42	+46	+44	

¹ Both pink and red.
² 15-16 ounce can.
³ 8-ounce package.

⁴ 28-ounce package.
⁵ No. 2 can.
⁶ See note 2, page 37.

Table 3 shows the changes in the retail prices of each of 22 articles of food³ as well as the changes in the amounts of these articles that could be purchased for \$1, each year, 1913 to 1923, and in April, 1924.

³ Although monthly prices of 43 food articles have been secured since January, 1919, prices of only 22 of these articles have been secured each month since 1913.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR \$1, IN EACH YEAR, 1913 TO 1923, AND IN APRIL, 1924

Year	Sirloin steak		Round steak		Rib roast		Chuck roast		Plate beef		Pork chops	
	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1
	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.
1913.....	\$0.254	3.9	\$0.223	4.5	\$0.198	5.1	\$0.160	6.3	\$0.121	8.3	\$0.210	4.8
1914.....	.259	3.9	.236	4.2	.204	4.9	.167	6.0	.126	7.9	.220	4.5
1915.....	.257	3.9	.230	4.3	.201	5.0	.161	6.2	.121	8.3	.203	4.9
1916.....	.273	3.7	.245	4.1	.212	4.7	.171	5.8	.128	7.8	.227	4.4
1917.....	.315	3.2	.290	3.4	.249	4.0	.209	4.8	.157	6.4	.319	3.1
1918.....	.389	2.6	.369	2.7	.307	3.3	.266	3.8	.206	4.9	.390	2.6
1919.....	.417	2.4	.389	2.6	.325	3.1	.270	3.7	.202	5.0	.423	2.4
1920.....	.437	2.3	.395	2.5	.332	3.0	.262	3.8	.183	5.5	.423	2.4
1921.....	.388	2.6	.344	2.9	.291	3.4	.212	4.7	.143	7.0	.349	2.9
1922.....	.374	2.7	.323	3.1	.276	3.6	.197	5.1	.128	7.8	.330	3.0
1923.....	.391	2.6	.335	3.0	.284	3.5	.202	5.0	.129	7.8	.304	3.3
1924: April.....	.396	2.5	.337	3.0	.290	3.4	.209	4.8	.133	7.5	.287	3.5
	Bacon		Ham		Lard		Hens		Eggs		Butter	
	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per dz.	Dozs.	Per lb.	Lbs.
	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per dz.	Dozs.	Per lb.	Lbs.
1913.....	\$0.270	3.7	\$0.269	3.7	\$0.158	6.3	\$0.213	4.7	\$0.345	2.9	\$0.383	2.6
1914.....	.275	3.6	.273	3.7	.156	6.4	.218	4.6	.353	2.8	.362	2.8
1915.....	.269	3.7	.261	3.8	.148	6.8	.208	4.8	.341	2.9	.358	2.8
1916.....	.287	3.5	.294	3.4	.175	5.7	.236	4.2	.375	2.7	.394	2.5
1917.....	.410	2.4	.382	2.6	.276	3.6	.286	3.5	.481	2.1	.487	2.1
1918.....	.529	1.9	.479	2.1	.333	3.0	.377	2.7	.569	1.8	.577	1.7
1919.....	.554	1.8	.534	1.9	.369	2.7	.411	2.4	.628	1.6	.678	1.5
1920.....	.523	1.9	.555	1.8	.295	3.4	.447	2.2	.681	1.5	.701	1.4
1921.....	.427	2.3	.488	2.0	.180	5.6	.397	2.5	.509	2.0	.517	1.9
1922.....	.398	2.5	.488	2.0	.170	5.9	.360	2.8	.444	2.3	.479	2.1
1923.....	.391	2.6	.455	2.2	.177	5.6	.350	2.9	.465	2.2	.554	1.8
1924: April.....	.362	2.8	.444	2.3	.172	5.8	.361	2.8	.321	3.1	.501	2.0
	Cheese		Milk		Bread		Flour		Corn meal		Rice	
	Per lb.	Lbs.	Per qt.	Qts.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.
	Per lb.	Lbs.	Per qt.	Qts.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.
1913.....	\$0.221	4.5	\$0.089	11.2	\$0.056	17.9	\$0.033	30.3	\$0.030	33.3	\$0.087	11.5
1914.....	.229	4.4	.089	11.2	.063	15.9	.034	29.4	.032	31.3	.088	11.4
1915.....	.233	4.3	.088	11.4	.070	14.3	.042	23.8	.033	30.3	.091	11.0
1916.....	.258	3.9	.091	11.0	.073	13.7	.044	22.7	.034	29.4	.091	11.0
1917.....	.332	3.0	.112	9.0	.092	10.9	.070	14.3	.058	17.2	.104	9.6
1918.....	.359	2.8	.139	7.2	.098	10.2	.067	14.9	.068	14.7	.129	7.8
1919.....	.426	2.3	.155	6.5	.100	10.0	.072	13.9	.064	15.6	.151	6.6
1920.....	.416	2.4	.167	6.0	.115	8.7	.081	12.3	.065	15.4	.174	5.7
1921.....	.340	2.9	.146	6.8	.099	10.1	.058	17.2	.045	22.2	.095	10.5
1922.....	.329	3.0	.131	7.6	.087	11.5	.051	19.6	.039	25.6	.095	10.5
1923.....	.369	2.7	.138	7.2	.087	11.5	.047	21.3	.041	24.4	.095	10.5
1924: April.....	.355	2.8	.138	7.2	.087	11.5	.046	21.7	.044	22.7	.098	10.2
	Potatoes		Sugar		Coffee		Tea					
	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.				
	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.	Per lb.	Lbs.				
1913.....	\$0.017	58.8	\$0.055	18.2	\$0.298	3.4	\$0.544	1.8				
1914.....	.018	55.6	.059	16.9	.297	3.4	.546	1.8				
1915.....	.015	66.7	.066	15.2	.300	3.3	.545	1.8				
1916.....	.027	37.0	.080	12.5	.299	3.3	.546	1.8				
1917.....	.043	23.3	.093	10.8	.302	3.3	.582	1.7				
1918.....	.032	31.3	.097	10.3	.305	3.3	.648	1.5				
1919.....	.038	26.3	.113	8.8	.433	2.3	.701	1.4				
1920.....	.063	15.9	.194	5.2	.470	2.1	.733	1.4				
1921.....	.031	32.3	.080	12.5	.363	2.8	.697	1.4				
1922.....	.028	35.7	.073	13.7	.361	2.8	.681	1.5				
1923.....	.029	34.5	.101	9.9	.377	2.7	.695	1.4				
1924: April.....	.028	35.7	.090	10.1	.413	2.4	.709	1.4				

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of each of 22 food articles,⁴ by years from 1907 to 1923, and by months for 1923⁵ and for January through April, 1924. These index numbers, or relative prices, are based on the year 1913 as 100, and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of rib roast for the year 1920 was 168, which means that the average money price for the year 1920 was 68 per cent higher than the average money price for the year 1913. The relative price of bacon for the year 1919 was 205 and for the year 1920, 194, which figures show a drop of 11 points but a decrease of only 5 per cent in the year.

In the last column of Table 4 are given index numbers, showing the changes in the retail cost of all articles of food combined. From January, 1913, to December, 1920, 22 articles have been included in the index, and beginning with January, 1921, 43 articles have been used.⁴ For an explanation of the method used in making the link between the cost of the market basket of 22 articles, weighted according to the average family consumption in 1901, and the cost of the market basket based on 43 articles and weighted according to the consumption in 1918, see MONTHLY LABOR REVIEW for March, 1921 (p. 25).

The curve shown in the chart on page 43 pictures more readily to the eye the changes in the cost of the family market basket and the trend in the cost of the food budget than do the index numbers given in the table. The retail cost of the food articles included in the index has decreased since July, 1920, until the curve is brought down in April, 1924, to approximately, where it was in April, 1917. The chart has been drawn on the logarithmic scale,⁶ because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

⁴See note 2, p. 37.

⁵For index numbers of each month, January, 1913, to December, 1920, see MONTHLY LABOR REVIEW for February, 1921, pp. 19-21, and for each month of 1921 and 1922 see MONTHLY LABOR REVIEW of February, 1923, p. 69.

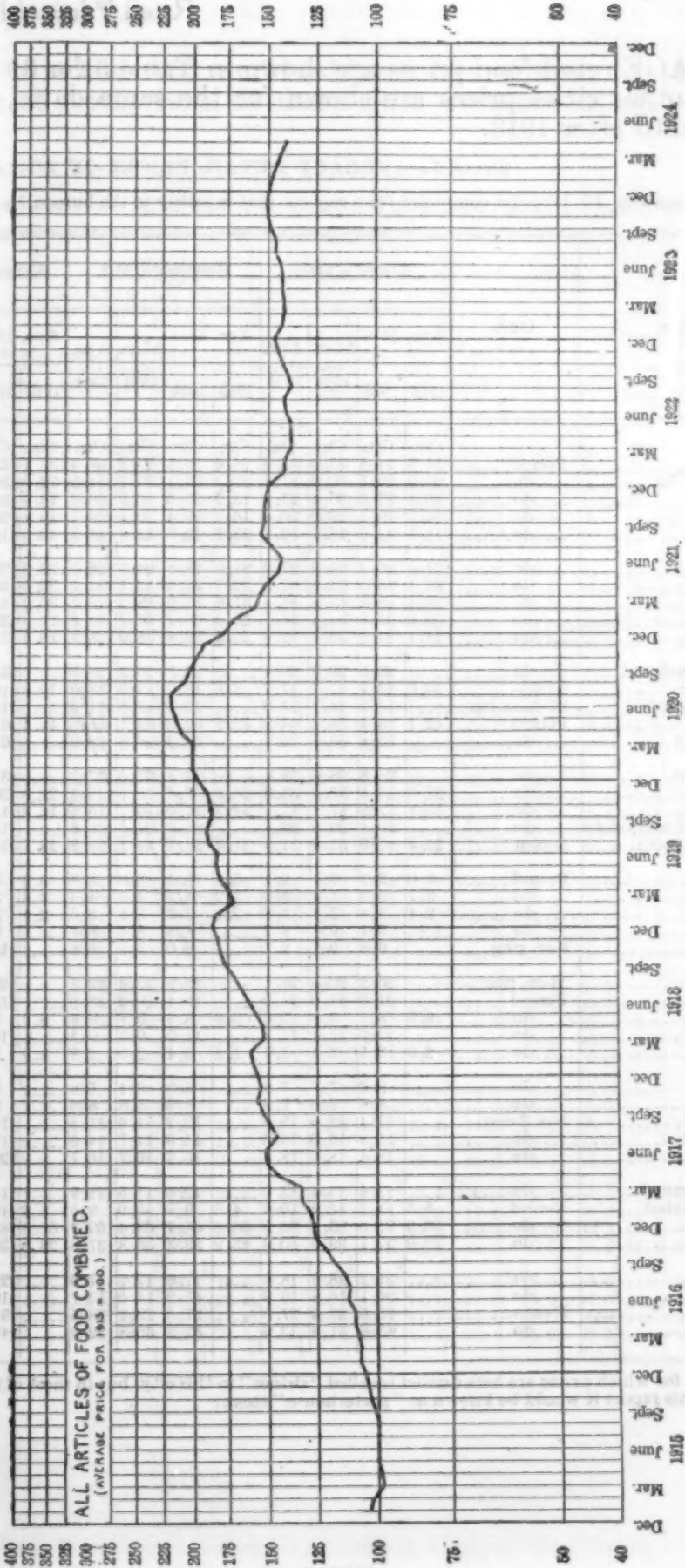
⁶For a discussion of the logarithmic chart see article on "Comparison of arithmetic and ratio charts," by Lucian W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20-34. Also "The 'ratio' chart," by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association June, 1917, pp. 577-601.

TABLE 4.—INDEX NUMBERS SHOWING CHANGES IN THE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, BY YEARS, 1907 TO 1923, BY MONTHS FOR 1923 AND FOR JANUARY TO APRIL, 1924

[Average for year 1913=100]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Lard	Hens	Eggs	Butter	Cheese	Milk	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Coffee	Tea	All articles combined
1907.....	71	68	76	74	74	74	74	76	81	81	84	85	87	87	95	88	105	105	105	105	---	---	82
1908.....	73	71	78	76	76	76	76	78	80	83	86	86	90	90	102	92	111	111	111	108	---	---	84
1909.....	77	74	81	83	83	83	83	82	90	89	93	90	91	91	109	94	112	107	107	107	---	---	89
1910.....	80	78	85	92	92	92	92	95	91	104	98	98	94	95	108	95	101	109	109	109	---	---	93
1911.....	81	79	85	91	91	91	91	89	88	91	93	88	88	96	102	94	130	111	111	111	---	---	92
1912.....	91	89	94	91	91	91	91	91	94	93	99	98	98	97	105	102	132	115	115	115	---	---	98
1913.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1914.....	102	106	103	104	104	105	102	102	99	102	102	94	104	100	113	104	108	108	108	108	100	100	102
1915.....	101	103	101	101	100	96	100	97	93	97	99	93	105	99	125	108	89	120	101	100	101	100	101
1916.....	108	110	107	107	106	108	106	109	111	111	109	108	117	102	130	135	159	146	100	100	101	100	101
1917.....	124	130	126	131	130	152	132	142	175	134	139	127	150	125	164	211	192	119	253	169	101	107	146
1918.....	153	165	155	166	170	186	196	178	211	177	165	151	162	156	175	203	227	148	188	176	102	119	168
1919.....	164	174	164	169	167	201	205	199	234	193	182	177	193	174	179	218	213	174	224	205	145	129	186
1920.....	172	177	168	184	181	201	194	206	187	210	197	183	188	185	205	245	217	200	371	353	158	135	203
1921.....	153	154	147	133	118	166	158	181	114	186	148	135	154	164	177	176	150	109	182	145	122	125	153
1922.....	147	145	139	123	106	157	147	181	108	169	129	125	149	147	155	155	130	109	165	133	121	125	142
1923: Av. for year.....	154	150	143	126	107	145	145	169	112	164	135	145	167	155	155	142	137	109	171	184	127	128	146
January.....	146	142	139	123	107	140	147	168	110	162	161	134	169	154	155	148	133	109	124	151	124	126	144
February.....	146	141	139	122	103	137	146	167	110	167	134	151	170	154	155	148	133	108	124	158	126	127	142
March.....	147	142	139	122	106	135	145	167	110	168	112	150	168	153	155	145	133	108	129	185	127	127	142
April.....	149	145	140	123	105	135	145	168	111	169	100	150	164	153	155	148	133	108	147	193	128	127	143
May.....	152	148	142	124	105	143	145	168	109	170	102	136	161	152	155	145	133	108	159	204	128	127	143
June.....	158	155	145	128	104	142	144	169	109	166	103	131	163	152	155	145	133	108	188	202	127	128	144
July.....	161	159	148	130	106	149	145	171	108	163	108	128	164	153	157	142	137	108	247	191	127	128	147
August.....	162	159	147	130	105	153	145	172	103	162	120	135	164	154	155	136	137	108	218	175	126	128	146
September.....	162	159	148	131	108	175	146	173	113	164	141	144	167	157	155	136	140	109	200	175	126	128	149
October.....	158	154	146	130	108	163	146	172	118	163	158	147	174	158	155	139	143	110	171	193	127	129	150
November.....	153	148	143	128	107	138	143	169	120	158	192	154	171	161	155	139	147	111	153	187	127	129	151
December.....	152	148	143	128	107	126	139	166	120	157	188	157	171	161	155	136	147	111	153	189	127	129	150
1924: January.....	154	149	144	129	110	130	138	166	118	162	158	160	169	161	155	136	147	113	165	185	128	131	149
February.....	152	148	143	128	110	127	136	165	114	165	144	157	168	157	155	139	147	113	165	187	130	147	147
March.....	153	148	144	129	110	128	134	164	111	169	101	151	166	156	155	139	147	111	165	189	137	130	144
April.....	156	151	146	131	110	137	134	165	109	169	93	131	161	155	155	139	147	113	165	181	140	140	141

TREND IN RETAIL PRICES OF FOOD IN THE UNITED STATES, JANUARY, 1915, TO APRIL, 1924



Retail Prices of Food in 51

AVERAGE retail food prices are shown in Table 5 for 39 cities for 12 other cities prices are shown for the same dates, with the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

[The prices shown in this table are computed from reports sent monthly to the bureau by retail dealers.]

Article	Unit	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924
		1913	1923			1913	1924			1913	1924		
Sirloin steak	Pound	Cts. 24.5	Cts. 34.4	Cts. 35.0	Cts. 35.9	Cts. 24.0	Cts. 36.1	Cts. 37.3	Cts. 38.3	Cts. 26.1	Cts. 35.2	Cts. 36.3	Cts. 37.5
Round steak	do	21.0	30.5	30.9	31.8	22.7	33.1	33.7	34.0	22.0	30.7	32.7	33.1
Rib roast	do	20.6	27.0	26.1	27.2	18.7	29.0	30.0	30.6	19.3	26.1	26.4	26.3
Chuck roast	do	14.5	19.5	19.9	20.5	16.3	19.4	20.1	20.7	16.8	20.7	21.0	20.8
Plate beef	do	11.6	11.8	11.7	12.1	13.2	12.8	12.9	13.3	10.5	13.1	13.6	13.2
Pork chops	do	24.5	26.7	24.5	27.2	21.0	28.5	24.7	26.3	22.5	28.1	25.8	27.1
Bacon, sliced	do	32.4	35.5	32.8	32.8	22.7	34.6	32.1	31.5	32.5	40.1	37.7	37.3
Ham, sliced	do	29.5	45.6	43.8	44.1	31.0	52.0	48.2	48.7	30.0	45.4	43.6	44.6
Lamb, leg of	do	20.0	35.5	34.4	36.1	20.5	36.2	37.7	38.6	21.8	38.8	36.4	40.6
Hens	do	21.1	31.1	32.7	32.3	22.0	39.8	38.9	38.6	19.3	31.3	31.9	32.1
Salmon, canned, red	do		29.6	29.3	29.4		26.8	26.3	26.3		31.1	30.3	30.2
Milk, fresh	Quart.	10.0	16.7	17.7	17.7	8.8	13.0	13.0	13.0	10.3	18.5	18.5	18.3
Milk, evaporated	15-16 oz. can		14.3	14.1	13.9		12.0	11.8	11.6		13.3	13.2	12.8
Butter	Pound	42.4	58.4	58.4	54.2	42.9	62.3	63.4	55.5	44.4	61.1	62.1	58.5
Oleomargarine	do		32.4	33.1	32.7		26.0	28.3	28.0		33.9	34.5	34.3
Nut margarine	do		26.8	28.0	28.4		27.1	27.0	27.2		31.2	33.6	33.0
Cheese	do	25.0	35.4	35.3	33.3	23.3	37.5	36.5	35.3	21.8	36.5	36.6	35.7
Lard	do	15.4	17.8	17.1	17.1	14.3	17.0	16.7	16.6	15.8	17.6	17.5	17.1
Vegetable lard substitute	do		20.4	22.0	22.5		21.6	24.4	24.5		18.8	20.9	20.6
Eggs, strictly fresh	Dozen	22.4	32.0	32.6	31.1	21.7	31.7	34.5	29.9	22.7	32.9	33.1	33.3
Bread	Pound	6.0	9.2	9.1	9.1	5.4	8.4	8.8	8.8	5.3	8.9	8.8	8.8
Flour	do	3.7	5.6	5.4	5.3	3.2	4.5	4.3	4.3	3.8	5.9	5.5	5.3
Corn meal	do	2.4	3.4	3.7	3.8	2.4	3.2	3.5	3.5	2.1	3.1	3.5	3.4
Rolled oats	do		9.1	9.1	9.2		8.8	8.4	8.4		9.4	9.2	9.3
Corn flakes	8-oz. pkg.		9.8	9.7	9.7		9.0	8.8	8.8		10.0	10.1	10.1
Wheat cereal	28-oz. pkg.		26.2	26.5	26.1		23.2	22.8	22.7		26.8	25.9	25.5
Macaroni	Pound		21.0	21.0	21.0		19.4	19.2	18.8		18.9	19.2	19.3
Rice	do	8.6	8.4	8.8	9.0	9.0	8.9	9.7	9.6	8.2	9.2	9.7	9.8
Beans, navy	do		12.9	12.1	12.1		11.0	9.3	9.3		12.4	11.9	11.6
Potatoes	do	2.0	3.5	3.4	3.7	1.5	2.4	2.9	2.8	1.9	3.5	3.9	3.9
Onions	do		8.0	7.7	7.9		6.9	6.1	5.6		8.6	7.1	7.2
Cabbage	do		8.6	7.0	7.2		8.8	8.8	8.5		9.5	6.9	6.7
Beans, baked	No. 2 can		13.4	12.5	12.0		12.2	11.6	11.5		14.2	13.3	13.3
Corn, canned	do		15.9	16.0	16.0		14.6	14.7	14.6		17.0	16.5	16.4
Peas, canned	do		18.4	18.5	18.5		16.3	16.7	16.7		20.4	21.4	21.4
Tomatoes, canned	do		13.4	13.4	13.4		12.0	11.5	11.9		11.8	12.3	12.3
Sugar, granulated	Pound	5.3	11.2	10.9	10.4	4.8	9.8	10.0	9.5	5.2	10.8	10.6	10.2
Tea	do	60.0	92.6	93.1	93.9	56.0	66.7	69.4	69.4	61.3	82.8	86.2	86.4
Coffee	do	32.0	37.1	39.9	40.9	25.2	33.3	36.8	37.8	28.8	38.6	39.0	39.5
Prunes	do		21.2	18.5	18.6		17.6	17.2	17.0		20.9	20.2	19.9
Raisins	do		20.1	16.8	16.8		15.2	14.0	13.7		19.9	17.5	17.2
Bananas	Dozen		25.0	29.0	27.5		27.6	29.1	28.6		34.8	40.8	38.6
Oranges	do		45.6	31.8	32.0		52.3	35.8	39.9		49.5	36.2	35.6

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

Cities on Specified Dates

April 15, 1913 and 1923, and for March 15 and April 15, 1924. For exception of April, 1913, as these cities were not scheduled by the

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES

[As some dealers occasionally fail to report, the number of quotations varies from month to month.]

her cities

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Chicago, Ill.				Cincinnati, Ohio				Cleveland, Ohio			
		Apr. 15—		Mar.	Apr.	Apr. 15—		Mar.	Apr.	Apr. 15—		Mar.	Apr.
		1913	1923	15, 1924	15, 1924	1913	1923	15, 1924	15, 1924	1913	1923	15, 1924	15, 1924
Sirloin steak.....	Pound.....	Cts. 22.3	Cts. 38.2	Cts. 40.0	Cts. 40.4	Cts. 24.1	Cts. 33.8	Cts. 34.0	Cts. 34.9	Cts. 25.0	Cts. 34.6	Cts. 35.7	Cts. 36.9
Round steak.....	do.....	19.0	29.4	31.3	31.3	21.9	30.6	30.0	30.8	21.8	28.5	29.6	30.8
Rib roast.....	do.....	19.7	29.8	31.3	31.7	19.9	28.2	27.8	27.9	20.0	24.9	25.4	26.1
Chuck roast.....	do.....	15.4	19.5	20.6	21.3	16.4	18.1	18.0	17.8	17.2	19.3	20.1	20.5
Plate beef.....	do.....	11.4	11.9	12.4	12.5	13.4	14.0	14.3	14.0	12.3	11.0	11.6	11.4
Pork chops.....	do.....	19.5	24.7	26.0	27.0	22.1	28.3	26.3	28.1	21.3	28.0	26.4	30.1
Bacon, sliced.....	do.....	31.4	44.8	41.4	41.4	25.7	33.0	28.8	29.1	27.0	39.5	36.5	37.1
Ham, sliced.....	do.....	32.5	47.4	46.1	46.6	28.2	46.0	45.1	45.4	36.0	46.4	48.0	48.7
Lamb, leg of.....	do.....	20.7	34.4	36.3	38.3	18.6	34.7	33.3	36.9	21.5	34.1	35.2	37.6
Hens.....	do.....	21.1	35.4	34.6	35.1	25.3	38.1	37.5	37.9	25.0	38.1	37.5	37.9
Salmon, canned, red.....	do.....		31.4	32.5	32.7		28.0	27.6	28.0		29.3	29.3	29.1
Milk, fresh.....	Quart.....	8.0	13.0	14.0	14.0	8.0	12.0	14.0	14.0	8.3	14.0	14.0	14.0
Milk, evaporated.....	15-16 oz. can.....		11.2	11.5	11.1		11.5	11.4	11.1		11.8	11.4	11.2
Butter.....	Pound.....	39.0	54.3	55.8	46.8	41.6	55.0	57.5	48.9	42.0	58.4	58.3	48.4
Oleomargarine.....	do.....		25.5	26.9	26.4		29.7	31.5	30.5		29.0	31.8	31.4
Nut margarine.....	do.....		24.4	25.8	25.1		28.2	29.1	28.5		27.3	30.6	30.2
Cheese.....	do.....	25.3	40.4	40.1	39.0	21.6	36.0	35.6	34.0	23.0	37.1	36.8	36.4
Lard.....	do.....	14.9	16.7	17.7	17.8	14.2	16.0	15.4	15.2	16.5	18.3	18.7	18.5
Vegetable lard substitute.....	do.....		23.3	25.1	25.1		22.8	24.7	24.7		24.1	26.6	26.8
Eggs, strictly fresh.....	Dozen.....	22.9	36.7	35.9	33.7	19.4	29.7	29.8	27.2	23.6	35.2	34.5	32.2
Bread.....	Pound.....	6.1	9.7	9.7	9.7	4.8	8.4	8.4	8.4	5.5	7.9	7.9	7.9
Flour.....	do.....	2.7	4.1	4.1	4.1	3.3	4.5	4.5	4.5	3.1	4.8	4.5	4.5
Corn meal.....	do.....	2.9	5.1	5.4	5.3	2.5	2.9	3.6	3.6	2.7	3.6	4.2	4.3
Rolled oats.....	do.....		8.1	8.5	8.5		8.7	8.3	8.3		8.5	8.9	8.8
Corn flakes.....	8-oz. pkg.....		9.5	9.4	9.2		9.5	9.1	9.0		9.8	10.0	10.0
Wheat cereal.....	28-oz. pkg.....		23.7	23.4	23.3		23.2	23.1	22.9		23.9	24.1	24.3
Macaroni.....	Pound.....		18.0	18.1	18.0		16.4	16.7	16.4		19.5	20.0	20.1
Rice.....	do.....	9.0	10.2	10.3	10.4	8.8	8.7	10.0	10.0	8.5	8.8	9.5	9.6
Beans, navy.....	do.....		11.6	10.0	10.0		10.8	8.0	7.9		11.5	9.1	8.9
Potatoes.....	do.....	1.3	2.2	2.6	2.6	1.5	2.3	2.5	2.5	1.4	2.5	2.5	2.5
Onions.....	do.....		6.4	5.9	6.0		6.8	5.0	5.2		6.4	5.7	5.6
Cabbage.....	do.....		8.8	6.6	6.6		8.3	6.6	6.8		9.9	7.6	7.2
Beans, baked.....	No. 2 can.....		12.9	12.6	12.6		11.6	11.9	11.6		12.9	12.6	12.6
Corn, canned.....	do.....		14.7	15.2	15.5		13.9	14.1	14.1		15.3	16.4	16.8
Peas, canned.....	do.....		16.1	17.3	17.8		16.5	17.6	17.9		16.7	17.6	17.6
Tomatoes, canned.....	do.....		13.6	14.1	14.1		12.4	12.8	12.8		13.7	13.8	13.8
Sugar, granulated.....	Pound.....	5.0	10.0	10.0	9.4	5.0	10.4	10.1	9.8	5.2	10.8	10.5	10.0
Tea.....	do.....	53.3	70.2	72.9	72.7	60.0	69.3	74.5	74.5	50.0	68.7	67.1	67.3
Coffee.....	do.....	30.7	38.8	41.1	42.4	25.6	34.1	36.0	36.9	26.5	40.5	44.0	44.9
Prunes.....	do.....		20.3	18.7	18.3		19.4	18.4	18.1		19.4	17.6	17.6
Raisins.....	do.....		18.5	16.5	16.4		18.5	15.8	15.5		17.3	15.5	15.5
Bananas.....	Dozen.....		38.0	46.1	45.0		40.7	45.0	35.0		48.5	50.7	49.0
Oranges.....	do.....		52.6	37.8	38.9		49.3	31.8	33.2		51.9	41.5	43.0

¹ The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

RETAIL PRICES OF FOOD

47

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

INCIPAL

ad, Ohio

Mar.
15,
1924

Cts.
35.7
29.6
25.4
20.1
11.6

30.1
37.1
48.7
37.6
37.9

29.3
14.0
11.4
58.3
31.8

30.6
36.8
18.7
26.6
4.5

7.9
4.5
4.2
8.9
0.0

24.3
20.1
9.6
8.9
2.5

5.6
7.2
12.6
16.5
17.6

13.8
10.0
67.3
44.9

17.6
15.5
49.0
43.0

er cities

Columbus, Ohio			Dallas, Tex.				Denver, Colo.				Detroit, Mich.				Fall River, Mass.			
Apr. 15, 1923	Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924
			1913	1923	1924		1913	1923			1913	1923			1913	1923		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
33.4	37.3	37.7	22.5	34.5	34.1	35.0	23.1	29.4	28.9	31.1	23.8	37.0	37.1	38.5	34.5	55.9	56.4	57.1
29.3	31.7	31.8	20.3	31.0	29.8	30.8	20.3	24.8	24.5	25.9	19.4	27.9	29.7	30.4	27.0	41.7	42.1	42.6
25.4	28.6	27.7	19.6	26.5	27.0	27.0	17.4	21.3	21.5	22.2	19.2	25.9	26.8	27.4	23.2	23.8	28.0	27.9
19.7	22.2	22.0	16.7	21.3	20.7	21.1	15.3	16.4	17.3	17.2	15.2	18.7	19.8	20.3	18.5	19.8	21.2	21.9
13.4	14.9	15.2	12.9	15.1	15.2	15.6	9.4	9.4	9.6	10.0	11.2	11.4	12.1	12.2	-----	11.9	13.5	12.8
25.6	24.7	25.5	20.8	26.5	27.3	26.9	19.9	26.3	24.0	26.3	19.6	26.8	27.5	29.4	21.5	27.3	24.4	27.5
36.7	37.2	38.1	38.0	38.6	38.5	38.5	29.0	43.3	40.3	40.0	22.8	39.3	35.7	35.3	25.8	38.7	35.1	34.3
45.1	45.3	45.8	31.3	50.0	49.2	49.6	29.2	49.0	45.9	46.4	25.0	48.0	48.5	48.5	30.3	46.2	45.9	45.9
34.0	42.5	42.5	22.5	43.0	42.2	43.8	18.1	33.9	34.7	35.8	17.4	37.1	37.8	41.1	21.0	38.9	40.0	41.4
34.0	34.6	34.6	19.5	30.1	29.4	29.3	21.8	30.4	29.8	30.6	21.8	38.5	37.5	38.0	25.0	41.8	39.8	40.8
31.6	32.0	31.8	-----	32.5	30.2	30.6	-----	32.9	32.8	32.8	-----	29.0	29.7	30.0	-----	30.7	31.3	31.0
12.0	13.0	13.0	10.0	15.0	15.0	15.0	8.4	11.8	11.7	11.7	8.0	14.0	14.0	14.0	9.0	14.0	13.0	12.0
11.8	11.8	11.7	-----	13.7	14.1	14.1	-----	11.7	12.1	11.4	-----	11.7	11.6	11.3	-----	13.4	13.5	13.5
52.9	55.6	47.4	37.0	57.2	57.8	50.8	39.0	54.4	54.6	45.6	37.9	58.5	58.0	48.3	41.3	58.2	59.0	49.4
27.4	30.2	29.4	-----	27.3	34.0	35.0	-----	29.2	31.0	30.7	-----	28.6	30.4	29.9	-----	30.0	61.3	31.7
26.7	28.6	28.1	-----	31.0	32.6	32.8	-----	28.5	29.6	29.6	-----	24.9	27.8	27.8	-----	28.3	30.7	30.0
34.9	36.2	34.8	20.0	34.7	36.1	33.3	26.1	37.3	37.8	37.2	20.7	36.0	37.4	36.9	23.8	38.2	38.6	38.9
15.0	15.6	14.9	18.0	20.8	21.7	20.5	16.3	19.1	17.8	17.9	16.0	17.6	17.8	17.4	15.0	16.9	17.1	16.6
22.9	25.0	25.0	-----	21.2	21.4	20.9	-----	21.6	25.0	25.7	-----	22.1	25.6	25.4	-----	23.7	25.4	25.9
28.0	30.3	24.8	21.0	27.2	27.3	25.8	24.6	32.2	30.8	30.1	23.2	36.1	33.1	30.0	27.7	45.1	50.7	37.3
7.9	7.7	7.7	5.6	8.9	8.7	8.7	5.3	8.2	7.7	7.7	5.6	8.6	8.8	8.8	6.2	9.1	8.8	8.8
4.5	4.2	4.2	3.4	4.6	4.5	4.5	2.6	3.9	3.6	3.6	3.1	4.3	4.2	4.2	3.2	5.1	4.9	4.9
3.0	3.7	3.7	2.6	3.6	4.5	4.5	2.4	3.2	3.2	3.2	2.8	4.3	4.7	4.8	3.4	5.7	7.1	7.0
8.9	9.4	9.4	-----	10.6	10.7	10.6	-----	9.2	8.9	8.9	-----	9.0	8.9	9.0	-----	9.8	9.6	9.6
10.1	9.7	9.7	-----	10.8	9.8	9.8	-----	9.9	9.8	10.0	-----	9.0	9.1	9.1	-----	9.9	10.0	10.0
23.7	24.6	24.6	-----	25.8	25.3	25.3	-----	24.6	24.5	24.3	-----	24.0	23.9	24.1	-----	27.5	25.3	25.7
18.4	18.2	18.2	-----	21.0	21.5	21.3	-----	21.0	19.9	19.8	-----	18.8	19.0	18.3	-----	24.0	23.6	23.5
10.0	10.3	10.0	9.3	10.4	11.4	10.8	8.6	9.7	9.9	9.9	8.4	9.6	9.9	10.1	10.0	10.1	10.2	10.4
11.4	8.3	8.4	-----	11.4	11.4	11.5	-----	12.1	11.2	11.0	-----	10.9	8.4	8.3	-----	10.9	10.2	10.3
2.2	2.5	2.5	1.8	3.6	4.4	4.2	1.1	2.0	2.4	2.8	1.2	1.8	1.9	1.9	1.6	2.9	2.9	2.8
8.3	6.4	6.3	-----	7.9	7.4	7.0	-----	5.1	4.8	4.8	-----	5.9	4.9	5.1	-----	6.0	6.6	6.2
9.8	7.1	7.4	-----	7.8	5.6	6.0	-----	7.9	4.6	5.5	-----	8.3	7.2	6.8	-----	10.4	8.2	8.1
13.5	13.7	13.7	-----	15.0	14.9	14.9	-----	14.2	14.0	14.2	-----	12.1	12.1	11.8	-----	13.1	12.7	12.9
12.3	13.4	13.4	-----	16.4	17.2	17.2	-----	14.9	15.1	15.2	-----	15.1	15.7	16.1	-----	15.8	16.2	16.2
14.6	16.7	16.7	-----	20.9	21.7	21.6	-----	16.3	16.9	16.9	-----	17.8	17.3	17.4	-----	18.0	18.4	18.6
12.8	13.6	13.5	-----	14.3	14.4	14.3	-----	13.6	13.9	14.1	-----	12.9	13.0	13.0	-----	13.7	13.8	13.9
10.5	10.4	10.1	5.7	11.3	11.4	10.9	5.3	11.5	11.1	10.4	5.0	10.4	10.1	9.8	5.2	10.6	10.5	10.0
75.1	79.4	78.9	66.7	91.8	97.6	97.6	52.8	68.1	68.5	69.6	43.3	64.7	64.3	63.4	44.2	60.4	58.9	59.8
37.6	40.2	41.1	36.7	43.1	46.5	47.5	29.4	36.5	39.9	40.9	29.3	38.9	39.8	40.9	33.0	39.4	41.7	43.1
20.3	19.3	19.5	-----	23.1	19.5	19.8	-----	20.7	18.8	17.8	-----	19.1	17.7	17.0	-----	18.4	16.6	17.0
17.8	15.8	15.3	-----	20.0	16.9	17.0	-----	19.0	15.3	15.2	-----	17.2	15.9	15.4	-----	18.2	16.5	16.7
38.6	39.1	40.0	-----	34.2	36.4	34.3	-----	12.6	14.7	14.0	-----	33.9	36.8	37.0	-----	10.9	11.4	10.9
50.0	37.2	39.3	-----	52.9	46.4	49.6	-----	49.0	35.7	36.5	-----	52.2	44.5	46.9	-----	52.5	38.4	40.1

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		Apr. 15, 1923	Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924
		Cts.	Cts.	Cts.	1913	1923	Cts.	Cts.	1913	1923	Cts.	Cts.
Sirloin steak.....	Pound.....	30.9	28.9	29.3	25.5	35.0	35.4	36.6	28.3	35.0	37.0	37.0
Round steak.....	do.....	30.2	28.0	28.9	23.3	33.6	34.2	34.9	24.0	29.5	30.8	30.3
Rib roast.....	do.....	24.4	23.3	23.1	17.4	25.5	26.2	26.8	25.0	27.7	28.5	28.0
Chuck roast.....	do.....	20.4	18.2	18.2	16.1	21.8	21.9	22.1	15.8	17.4	18.2	18.4
Plate beef.....	do.....	16.3	15.5	15.5	12.5	13.9	13.7	13.8	11.4	10.6	10.6	10.3
Pork chops.....	do.....	26.6	25.9	27.1	21.7	27.4	25.3	26.9	23.8	28.6	28.0	29.5
Bacon, sliced.....	do.....	46.2	41.8	41.2	29.8	37.8	32.9	32.9	26.4	37.3	32.5	32.3
Ham, sliced.....	do.....	47.7	45.4	44.3	31.2	48.4	47.5	47.5	28.0	44.1	44.0	45.0
Lamb, leg of.....	do.....	35.0	32.5	33.0	19.0	39.2	39.3	42.1	20.8	36.7	35.5	37.5
Hens.....	do.....	33.2	31.7	32.9	22.5	34.8	33.3	33.0	22.0	34.0	35.6	35.2
Salmon, canned, red.....	do.....	30.8	29.2	29.5	---	37.0	36.2	34.7	---	30.5	30.7	30.7
Milk, fresh.....	Quart.....	15.8	15.8	15.8	8.0	12.0	12.0	12.0	12.5	17.3	19.0	18.7
Milk, evaporated.....	15-16 oz. can.....	12.7	13.0	12.5	---	11.7	11.6	11.4	---	12.7	12.9	12.9
Butter.....	Pound.....	54.7	56.1	49.8	39.3	55.3	54.1	47.1	43.8	59.8	60.7	52.7
Oleomargarine.....	do.....	32.5	33.3	32.0	---	28.8	30.6	29.9	---	28.3	30.0	30.2
Nut margarine.....	do.....	28.9	30.2	29.6	---	26.8	29.6	29.2	---	27.3	29.0	28.5
Cheese.....	do.....	33.5	33.3	32.0	20.8	35.5	35.8	34.2	22.5	34.1	34.5	31.7
Lard.....	do.....	19.1	19.9	19.6	15.2	14.5	14.3	14.3	15.7	18.1	18.1	18.6
Vegetable lard substitute.....	do.....	18.7	17.8	17.6	---	23.1	25.4	25.4	---	22.0	23.3	23.4
Eggs, strictly fresh.....	Dozen.....	27.2	28.3	25.7	20.0	28.4	29.2	24.9	27.5	33.7	31.0	31.1
Bread.....	Pound.....	7.2	7.0	7.0	5.1	8.5	8.5	8.5	6.5	10.2	10.1	10.1
Flour.....	do.....	5.0	4.8	4.7	3.2	4.8	4.3	4.3	3.8	5.6	5.4	5.4
Corn meal.....	do.....	3.6	4.2	4.3	2.5	3.2	3.6	3.7	2.6	3.3	3.8	3.8
Rollod oats.....	do.....	8.8	9.0	9.0	---	7.5	7.3	7.3	---	9.5	9.1	9.0
Corn flakes.....	8-oz. pkg.....	9.7	9.7	9.7	---	9.0	8.8	8.8	---	9.7	9.7	9.7
Wheat cereal.....	28-oz. pkg.....	24.1	24.1	24.1	---	24.8	24.2	24.3	---	24.1	24.8	24.8
Macaroni.....	Pound.....	20.0	19.1	19.2	---	18.5	18.5	18.5	---	19.6	19.8	19.8
Rice.....	do.....	7.7	8.1	8.2	9.2	10.1	10.8	10.8	6.6	8.6	9.0	9.0
Beans, navy.....	do.....	10.6	10.3	10.2	---	11.5	8.8	8.6	---	11.9	11.0	10.9
Potatoes.....	do.....	3.6	4.1	4.4	1.2	1.9	2.1	2.1	2.2	3.3	3.9	3.8
Onions.....	do.....	7.3	5.7	5.5	---	6.8	5.4	5.5	---	7.0	6.8	7.2
Cabbage.....	do.....	5.6	4.1	4.2	---	8.6	6.3	6.9	---	4.8	5.3	5.1
Beans, baked.....	No. 2 can.....	13.5	12.8	12.9	---	13.5	13.1	13.1	---	12.0	12.0	12.0
Corn, canned.....	do.....	14.0	15.2	15.2	---	13.4	13.6	13.8	---	16.2	17.6	17.7
Peas, canned.....	do.....	18.7	18.1	18.6	---	15.7	16.2	16.0	---	15.8	18.0	18.0
Tomatoes, canned.....	do.....	12.0	12.1	12.1	---	13.8	14.2	14.0	---	11.4	11.0	10.9
Sugar, granulated.....	Pound.....	10.2	10.0	9.7	5.8	11.2	10.6	10.3	5.9	10.8	10.8	10.3
Tea.....	do.....	69.9	74.5	74.5	60.0	76.9	79.5	80.0	60.0	84.7	89.0	91.5
Coffee.....	do.....	34.2	36.3	36.8	30.8	38.1	42.6	43.2	34.5	39.5	42.0	42.9
Prunes.....	do.....	19.5	18.1	18.2	---	20.8	20.0	19.4	---	20.6	18.3	18.7
Raisins.....	do.....	18.3	16.0	15.9	---	18.7	17.4	17.0	---	19.6	17.8	17.6
Bananas.....	Dozen.....	29.0	31.8	29.0	---	29.7	35.7	34.3	---	25.6	34.3	29.3
Oranges.....	do.....	44.5	38.8	39.8	---	50.4	36.7	37.3	---	40.5	25.0	25.3

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

RETAIL PRICES OF FOOD

49

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

PRINCIPAL

ville, Fla.

Mar. 15,
1924Cts. Cts.
37.0 37.0
30.8 30.3
28.5 28.0
18.2 18.4
10.6 10.328.0 29.5
32.5 32.3
44.0 45.0
35.5 37.5
35.6 35.229.0 30.7
19.0 18.7
12.9 12.9
60.7 52.7
30.0 30.229.0 28.5
34.5 31.7
18.1 18.6
23.3 23.4
31.0 31.110.1 10.1
5.4 5.4
3.8 3.8
9.1 9.0
9.7 9.724.8 24.8
19.8 19.8
9.0 9.0
1.0 10.9
3.9 3.86.8 7.2
5.3 5.1
2.0 12.0
7.6 17.7
8.0 18.01.0 10.9
0.8 10.3
9.0 91.5
2.0 42.98.3 18.7
7.8 17.6
4.3 22.3
5.0 25.3

er cities

Kansas City, Mo.				Little Rock, Ark.				Los Angeles, Calif.				Louisville, Ky.				Manchester, N. H.			
Apr. 15—		Mar. 15,		Apr. 15—		Mar. 15,		Apr. 15—		Mar. 15,		Apr. 15—		Mar. 15,		Apr. 15—		Mar. 15,	
1913	1923	1924	1924	1913	1923	1924	1924	1913	1923	1924	1924	1913	1923	1924	1924	1913	1923	1924	1924
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
24.4	36.0	37.1	38.1	27.5	33.3	32.9	34.3	23.4	34.1	34.8	36.3	23.6	31.2	31.5	31.5	35.2	53.9	54.9	55.3
21.2	30.2	30.8	31.0	21.1	30.0	28.0	29.3	20.8	27.7	28.9	29.6	20.0	27.7	27.8	27.8	28.5	44.6	43.3	44.7
17.9	25.0	25.5	26.1	20.0	25.9	25.2	26.2	19.1	28.8	27.9	29.7	18.6	23.1	23.7	24.1	20.0	26.1	27.8	28.0
14.8	17.7	19.0	19.1	16.9	19.8	18.1	19.1	15.5	18.0	19.4	20.8	15.6	17.3	18.0	18.0	17.0	20.6	21.6	21.9
11.9	10.7	11.6	11.6	13.5	14.6	15.2	15.4	12.4	13.1	14.5	15.6	12.8	13.7	13.8	13.8	-----	14.8	15.4	15.9
20.0	25.2	23.4	25.9	21.3	29.1	25.8	27.3	24.4	36.8	36.5	39.4	20.0	22.6	22.5	24.6	21.0	28.3	26.1	29.8
28.4	41.1	38.8	38.5	37.0	40.9	37.1	36.9	33.8	49.4	46.4	46.9	27.8	33.2	29.7	30.4	23.5	34.1	31.1	30.4
28.1	45.8	45.0	45.3	31.3	46.9	44.7	45.0	35.0	58.4	57.1	57.4	27.5	42.1	40.3	40.5	27.3	40.1	37.4	37.4
20.1	31.8	33.9	35.5	22.5	38.1	36.3	40.7	19.0	33.5	36.0	37.8	18.1	36.3	37.0	38.0	21.3	35.8	37.4	38.4
18.2	32.9	31.3	31.0	20.0	29.1	28.1	28.8	25.6	40.3	40.7	42.0	24.4	33.3	36.4	36.5	23.8	42.2	41.2	41.5
-----	32.6	34.0	33.8	-----	32.2	30.3	30.3	-----	38.1	37.2	36.7	-----	29.1	29.4	29.5	-----	29.8	29.5	29.7
8.7	13.3	13.3	13.3	10.0	15.3	15.7	15.7	10.0	15.0	15.7	15.7	8.8	12.0	13.0	13.0	8.0	13.0	13.0	13.0
-----	12.6	12.2	12.1	-----	13.4	13.0	12.6	-----	10.7	10.3	10.3	-----	12.1	12.3	12.3	-----	13.7	13.7	13.3
39.8	58.1	57.1	49.9	43.3	58.5	56.9	51.4	35.0	53.6	57.8	48.8	40.7	56.6	58.7	49.3	42.8	62.2	62.3	53.1
-----	26.9	27.6	28.2	-----	31.0	31.4	31.7	-----	32.6	35.5	35.2	-----	28.6	31.7	31.1	-----	29.2	28.8	28.8
-----	27.6	27.6	27.7	-----	29.0	29.1	29.1	-----	29.4	29.4	29.0	-----	25.7	28.3	28.0	-----	22.0	22.7	22.7
21.7	35.0	36.7	35.1	21.7	37.0	35.6	33.1	19.5	35.9	39.6	38.5	21.7	32.9	33.2	31.8	22.0	38.3	37.6	36.6
16.2	17.6	17.1	17.0	15.4	19.5	18.7	18.6	17.9	19.5	19.5	14.8	15.3	14.8	15.0	15.0	16.0	17.4	17.2	17.0
-----	23.0	25.9	25.9	-----	21.7	20.3	20.7	-----	22.3	24.5	24.4	-----	23.1	26.8	26.8	-----	20.2	23.3	23.5
20.9	31.3	28.8	27.2	19.5	29.1	27.9	28.8	26.0	36.4	33.3	35.2	19.3	28.0	28.5	24.6	27.3	42.9	43.6	38.6
6.0	8.2	8.3	8.3	6.0	8.2	8.1	8.1	6.2	9.0	9.3	9.3	5.7	8.4	8.4	8.4	5.9	8.4	8.3	8.3
3.0	4.5	4.3	4.3	3.6	5.4	5.1	5.0	3.6	4.8	4.5	4.4	3.7	5.4	5.0	5.0	3.4	5.2	4.8	4.8
2.5	4.5	4.6	4.6	2.4	3.1	3.5	3.5	3.2	4.3	4.3	4.3	2.2	2.9	3.1	3.1	3.6	4.6	4.8	4.7
-----	8.4	9.0	9.0	-----	10.6	9.4	9.4	-----	9.8	9.6	9.5	-----	8.3	8.3	8.3	-----	8.8	8.8	8.6
-----	10.2	9.9	9.9	-----	9.7	9.6	9.6	-----	9.6	9.7	9.6	-----	8.9	9.3	9.2	-----	9.6	9.8	9.8
-----	25.5	24.9	25.2	-----	25.1	24.9	24.7	-----	23.3	23.4	23.4	-----	23.7	23.7	23.5	-----	25.2	24.5	24.8
-----	21.3	21.7	21.9	-----	20.8	20.2	20.1	-----	15.9	15.3	15.4	-----	16.4	16.6	16.6	-----	24.9	24.5	24.2
8.7	9.6	9.3	9.3	8.3	8.1	8.1	8.6	7.7	9.6	10.2	10.2	8.1	8.1	8.6	8.6	8.5	8.9	9.3	9.4
-----	11.7	9.9	9.7	-----	12.1	10.7	9.9	-----	10.0	9.3	9.4	-----	10.4	7.6	7.7	-----	11.4	9.9	9.6
1.5	2.2	2.5	2.5	1.7	2.7	2.9	3.4	1.0	3.1	3.7	4.0	1.4	1.9	2.2	2.2	1.3	2.7	2.6	2.6
-----	7.7	7.1	7.4	-----	7.7	6.6	6.7	-----	6.6	5.4	5.3	-----	6.6	5.3	5.4	-----	6.8	6.1	5.9
-----	9.0	5.9	6.5	-----	9.2	6.2	7.0	-----	4.6	5.8	6.6	-----	8.4	7.1	7.2	-----	8.4	6.3	8.8
-----	14.3	14.0	14.0	-----	13.3	12.5	12.3	-----	12.9	12.8	12.8	-----	11.5	11.5	11.5	-----	14.9	14.4	14.8
-----	13.8	14.4	14.4	-----	15.3	15.2	15.4	-----	16.9	15.1	15.2	-----	13.5	13.9	13.9	-----	17.6	18.1	18.1
-----	15.4	16.6	16.6	-----	18.3	18.5	18.7	-----	19.0	17.3	17.0	-----	15.5	16.7	16.7	-----	20.6	21.4	20.9
-----	13.7	13.6	13.5	-----	13.6	13.1	12.9	-----	15.2	14.2	14.2	-----	11.1	12.2	11.9	-----	20.6	20.4	20.4
5.5	11.1	10.6	10.4	5.5	11.6	11.3	10.5	5.3	10.6	10.3	9.9	5.1	10.5	10.6	10.2	5.3	10.9	10.6	9.7
54.0	78.8	80.4	80.2	50.0	91.4	87.7	87.4	54.5	69.4	68.1	68.1	62.5	71.4	72.8	72.8	45.0	57.7	58.9	58.9
27.8	38.9	43.9	44.3	30.8	41.7	43.8	44.4	36.3	39.6	45.7	45.9	27.5	36.0	39.0	43.0	32.0	39.8	43.2	44.4
-----	20.0	17.8	18.6	-----	20.6	17.6	17.8	-----	19.6	17.9	17.8	-----	19.9	17.8	17.6	-----	19.5	16.6	16.8
-----	20.3	16.8	16.8	-----	20.7	18.5	18.2	-----	17.8	14.9	14.6	-----	18.2	14.9	14.7	-----	17.4	14.9	14.6
-----	13.0	13.6	10.6	-----	10.3	11.5	9.4	-----	11.7	12.2	11.2	-----	37.5	41.7	38.3	-----	10.6	43.3	42.5
-----	47.0	43.7	45.4	-----	52.9	40.2	42.8	-----	37.0	32.8	33.5	-----	42.7	31.5	32.5	-----	49.9	35.5	40.8

No. 2½ can.

No. 3 can.

Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924
		1913	1923			1913	1923			1913	1923		
Sirloin steak	Pound	Cts. 23.2	Cts. 31.9	Cts. 32.8	Cts. 32.9	Cts. 21.5	Cts. 35.9	Cts. 36.9	Cts. 36.8	Cts. 21.7	Cts. 31.3	Cts. 29.5	Cts. 31.2
Round steak	do	19.4	28.1	27.9	28.6	19.5	31.0	32.0	32.1	19.5	26.1	25.8	27.9
Rib roast	do	21.9	23.8	23.4	23.8	18.0	26.9	27.6	27.5	18.2	24.4	23.8	25.1
Chuck roast	do	15.1	18.2	18.1	17.8	15.8	21.0	22.4	22.7	15.5	19.2	19.0	19.8
Plate beef	do	12.2	13.7	13.8	13.5	11.5	12.0	12.9	12.7	10.1	9.6	10.5	10.8
Pork chops	do	22.1	23.8	22.0	23.5	19.5	26.5	25.5	26.5	18.3	26.6	25.3	27.3
Bacon, sliced	do	30.7	38.4	33.8	32.7	26.8	40.6	37.2	36.9	25.0	41.4	38.1	37.7
Ham, sliced	do	27.1	43.5	42.1	43.8	26.8	43.6	42.5	43.3	27.5	45.9	42.5	44.1
Lamb, leg of	do	21.2	36.4	34.4	38.7	20.0	36.1	37.2	39.1	17.2	33.7	36.1	36.1
Hens	do	21.6	29.5	29.2	29.5	22.3	36.6	34.7	35.8	21.0	32.9	32.0	33.4
Salmon, canned, red	do		36.3	35.1	35.0		33.5	34.1	34.3		36.6	36.9	37.5
Milk, fresh	Quart	10.0	15.0	14.7	14.7	7.0	10.0	11.0	11.0	7.0	11.0	12.0	10.0
Milk, evaporated	15-16 oz. can		12.5	13.0	12.3		11.7	11.5	11.4		12.5	12.7	12.1
Butter	Pound	42.9	56.5	57.2	49.5	38.2	53.6	53.9	45.6	38.4	52.0	53.7	44.2
Oleomargarine	do		28.3	29.5	29.5		26.7	28.2	27.5		27.5	28.8	28.5
Nut margarine	do		25.0	24.6	24.4		25.6	27.7	26.6		26.1	26.7	26.6
Cheese	do	21.3	33.2	33.2	29.0	21.7	34.2	35.3	33.4	20.0	35.0	35.4	33.2
Lard	do	15.7	16.5	15.7	15.3	15.4	17.7	18.3	17.9	15.4	17.0	17.1	16.8
Vegetable lard substitute	do		22.3	23.9	23.9		23.3	25.4	25.8		24.2	27.3	27.4
Eggs, strictly fresh	Dozen	22.9	31.8	30.6	30.9	21.2	30.5	28.4	27.0	21.9	31.6	28.4	27.1
Bread	Pound	6.0	9.0	9.0	9.0	5.6	8.9	9.2	9.2	5.6	9.0	8.9	8.9
Flour	do	3.6	5.6	5.2	5.3	3.1	4.2	4.1	4.2	2.9	4.6	4.3	4.4
Corn meal	do	2.0	3.0	3.6	3.6	3.3	3.9	4.4	4.5	2.4	4.0	4.4	4.3
Rolled oats	do		9.3	9.4	9.2		7.0	7.7	7.8		8.8	8.6	8.4
Corn flakes	8-oz. pkg		9.6	9.8	9.8		9.2	9.2	9.1		10.3	10.1	10.1
Wheat cereal	28-oz. pkg		24.2	24.9	24.9		24.4	23.9	23.7		24.4	24.2	23.8
Macaroni	Pound		17.7	18.7	18.4		17.5	17.9	17.5		17.7	17.6	17.3
Rice	do	8.0	7.9	8.8	8.8	9.0	9.9	10.5	10.4	9.1	9.4	10.0	9.9
Beans, navy	do		11.9	9.7	9.7		11.6	9.5	9.2		12.2	9.5	9.5
Potatoes	do	1.6	2.6	3.1	3.2	1.2	1.7	2.2	2.1	0.8	1.7	1.9	2.0
Onions	do		6.3	5.7	5.9		7.0	6.1	5.5		5.5	6.2	6.5
Cabbage	do		7.8	4.9	5.3		9.3	6.5	6.7		8.9	5.4	6.9
Beans, baked	No. 2 can		13.0	13.3	13.3		11.6	12.0	11.9		14.3	13.9	13.9
Corn, canned	do		14.7	14.6	14.6		15.4	15.8	15.9		13.5	13.9	13.8
Peas, canned	do		17.7	17.8	17.9		15.3	16.5	16.6		15.9	16.5	16.6
Tomatoes, canned	do		13.2	12.8	12.8		13.8	14.0	14.0		14.9	14.7	14.6
Sugar, granulated	Pound	5.3	10.8	10.7	10.3	5.3	10.1	10.2	9.9	5.6	10.7	10.5	10.2
Tea	do	63.8	84.5	83.8	83.3	50.0	70.1	71.4	71.2	45.0	65.0	65.3	65.0
Coffee	do	27.5	37.2	42.1	41.9	27.5	35.3	37.7	38.7	30.8	41.9	44.7	45.7
Prunes	do		20.1	18.3	17.5		20.3	18.7	17.9		21.8	18.7	18.5
Raisins	do		19.0	16.9	16.9		17.7	15.2	15.5		18.6	16.1	15.3
Bananas	Dozen		33.9	36.7	36.1		10.1	13.0	9.9		12.5	14.2	11.1
Oranges	do		49.6	36.9	35.1		51.0	38.3	42.2		50.4	40.2	43.0

¹ Whole.² No. 3 can.³ Per pound.

RETAIL PRICES OF FOOD

51

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

PRINCIPAL		ARTICLES OF FOOD IN 51 CITIES UNSPECIFIED DATES—Continued																		
St. Paul, Minn.		Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
Mar. 15, 1924	Apr. 15, 1924	Apr. 15, 1923	Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924
Cts.	Cts.	1913	1923	1924	1913	1923	1924	1924	1913	1923	1924	1924	1913	1923	1924	1924	1913	1923	1924	1924
29.5	31.2	32.3	31.5	32.5	26.6	42.4	44.1	45.4	31.6	47.8	50.4	50.5	22.1	32.4	33.9	33.9	26.1	40.4	41.1	42.4
25.8	27.9	31.5	30.3	31.3	26.4	38.9	42.1	43.4	28.0	38.9	41.7	42.2	19.3	28.8	29.5	29.8	25.1	38.7	40.0	40.9
23.8	25.1	26.2	25.0	25.0	21.2	33.5	34.6	35.3	22.4	33.6	34.4	34.9	20.9	28.5	30.0	29.6	22.6	35.1	35.8	36.7
19.0	19.8	20.6	20.2	20.6	17.6	20.5	23.6	23.9	18.8	24.5	24.4	25.4	15.4	20.2	21.6	21.4	16.6	21.8	22.8	23.0
10.5	10.8	16.0	15.5	16.5	12.8	12.1	12.8	12.8	-----	14.4	13.8	13.8	11.6	15.6	16.8	16.0	14.8	17.8	18.3	18.2
25.3	27.3	34.2	28.8	29.6	23.2	28.9	25.8	28.3	23.0	27.5	26.6	30.5	22.5	29.0	27.9	28.9	22.7	31.0	28.9	32.4
38.1	37.7	41.0	36.6	35.3	23.8	36.8	37.5	37.7	27.0	40.6	37.4	37.0	29.1	39.7	36.3	37.2	24.9	38.1	34.7	35.1
42.5	44.1	43.8	40.7	40.7	20.3	26.8	26.2	26.2	31.4	51.3	49.9	49.9	27.6	40.6	40.6	40.6	28.5	49.0	47.8	48.2
36.1	36.1	35.0	37.0	36.0	22.0	36.7	38.3	39.4	21.8	36.6	38.0	39.5	22.0	38.9	41.1	41.9	19.0	35.0	36.3	38.5
32.0	33.4	35.0	35.6	35.6	23.8	38.3	37.6	38.1	23.7	39.5	39.7	39.7	24.3	37.2	37.5	35.8	21.3	36.6	37.0	37.9
36.9	37.5	29.4	28.5	28.4	-----	29.9	27.9	27.4	-----	33.0	32.9	32.8	-----	37.8	41.5	41.8	-----	27.9	28.6	28.6
12.0	10.0	15.0	20.0	20.0	9.0	16.0	15.5	15.5	9.0	15.0	15.0	15.0	10.0	14.0	15.0	15.0	9.0	15.0	14.0	14.0
12.7	12.1	13.0	12.8	12.1	-----	11.9	11.9	11.5	-----	12.4	12.3	12.3	-----	11.9	11.7	11.3	-----	11.8	11.7	11.4
53.7	44.2	61.2	61.0	56.2	42.2	58.4	59.2	50.5	40.3	58.2	58.7	50.6	40.3	57.5	59.4	50.7	40.9	56.9	56.1	48.3
28.8	28.5	30.3	33.4	31.6	-----	29.2	31.4	31.1	-----	31.5	33.3	31.7	-----	30.0	31.0	30.6	-----	30.4	30.8	31.0
26.7	26.6	27.6	29.0	28.8	-----	27.0	28.9	27.9	-----	27.8	30.0	29.0	-----	28.8	28.6	28.3	-----	26.7	28.4	28.1
33.4	33.2	35.5	35.6	33.3	24.5	39.7	41.2	41.5	22.0	38.3	37.2	37.1	22.0	33.7	35.0	32.4	19.6	37.8	37.8	37.5
17.1	16.8	17.1	17.1	16.8	15.8	17.3	18.3	17.3	15.7	17.1	17.7	17.4	14.8	16.8	16.5	16.3	15.9	17.8	18.3	17.9
27.3	27.4	19.0	19.5	19.9	-----	22.4	24.9	25.0	-----	22.3	24.3	23.9	-----	22.8	21.2	20.9	-----	23.0	25.7	25.5
28.4	27.1	32.5	27.6	29.6	33.0	45.1	44.9	42.1	28.9	42.7	48.0	39.2	21.9	30.8	30.2	28.9	30.2	44.0	42.6	40.8
8.9	8.9	9.0	8.8	8.8	5.6	8.5	8.6	8.6	6.0	7.9	8.3	8.1	5.1	7.7	7.7	7.7	6.0	9.6	9.5	9.5
4.3	4.4	5.5	5.1	5.0	3.6	4.7	4.6	4.6	3.1	4.7	4.6	4.6	3.8	5.9	5.4	5.4	3.2	4.9	4.7	4.7
4.4	4.3	3.3	3.7	3.6	3.6	5.9	6.4	6.4	2.9	5.9	6.2	6.2	2.6	3.2	3.7	3.7	3.4	5.2	5.6	5.6
8.6	8.4	9.1	8.4	8.5	-----	8.2	8.1	8.3	-----	8.9	9.0	9.1	-----	8.5	8.6	8.6	-----	8.2	8.5	8.5
0.1	10.1	9.3	9.3	9.3	-----	8.9	8.9	8.9	-----	9.6	9.6	9.6	-----	9.4	9.3	9.4	-----	8.7	8.8	8.8
4.2	23.8	23.5	23.5	23.5	-----	24.1	23.6	23.3	-----	24.3	24.0	24.0	-----	23.9	23.9	23.9	-----	22.8	22.5	22.6
7.6	17.3	20.1	19.4	19.6	-----	21.4	20.9	20.9	-----	22.2	22.5	22.7	-----	9.0	9.6	9.6	-----	20.4	20.4	20.3
0.0	9.9	8.3	8.6	8.9	9.0	9.2	9.8	9.7	9.3	9.7	10.4	10.2	7.4	8.7	9.2	9.3	8.0	9.5	9.5	9.5
9.5	9.5	12.4	10.2	9.7	-----	10.9	9.9	9.4	-----	11.4	9.8	9.8	-----	10.8	9.3	9.2	-----	11.6	11.2	10.9
1.9	2.0	2.9	3.1	3.0	2.4	3.2	3.5	3.4	1.6	3.0	3.0	3.0	2.0	2.9	3.3	3.2	2.4	3.7	3.6	3.6
3.2	6.5	7.6	5.4	5.6	-----	7.2	6.3	6.0	-----	6.3	6.0	5.5	-----	6.5	5.1	5.1	-----	6.3	6.0	5.8
5.4	6.9	4.8	5.5	5.7	-----	10.0	8.2	8.5	-----	10.0	7.4	8.9	-----	4.8	4.6	4.9	-----	8.4	6.4	7.8
5.9	13.9	12.5	12.1	11.9	-----	10.7	11.3	11.3	-----	12.4	11.9	11.9	-----	13.1	12.4	12.2	-----	11.5	11.9	11.9
5.9	13.8	15.3	15.3	15.3	-----	14.4	15.1	15.3	-----	17.9	18.0	18.0	-----	13.7	13.7	13.2	-----	15.3	15.6	15.8
5.5	16.6	15.8	16.1	16.2	-----	16.6	17.7	17.7	-----	21.3	20.1	19.9	-----	17.3	16.9	16.8	-----	16.5	17.8	17.9
7	14.6	12.4	11.6	11.6	-----	12.0	12.0	12.2	-----	21.8	21.8	22.2	-----	11.8	11.6	11.5	-----	11.6	11.1	11.2
5	10.2	11.0	10.4	9.8	5.1	10.1	10.1	9.5	5.2	10.2	10.2	9.9	5.2	10.2	9.6	9.0	4.9	9.8	9.6	9.1
3	65.0	74.9	74.9	76.3	53.8	54.6	58.3	57.7	55.0	58.0	57.7	59.2	62.1	70.1	70.9	70.7	43.3	54.2	59.4	59.8
7	45.7	37.5	40.5	41.5	29.3	35.6	38.9	40.3	33.8	40.5	42.7	44.3	26.4	32.8	35.4	35.4	27.5	35.6	38.7	40.0
7	18.5	20.4	16.7	16.7	-----	17.1	16.3	15.8	-----	19.3	16.6	16.4	-----	20.2	18.2	18.2	-----	17.8	15.8	15.6
1	15.3	18.3	16.4	16.4	-----	15.9	15.3	15.3	-----	16.9	15.4	15.4	-----	18.6	15.4	15.3	-----	15.9	15.7	15.7
2	11.1	27.1	29.4	30.0	-----	37.9	38.0	36.5	-----	33.2	33.8	34.1	-----	20.0	22.0	19.0	-----	42.5	42.2	41.0
2	43.0	47.3	31.5	32.4	-----	51.9	37.7	40.4	-----	51.9	38.2	38.6	-----	50.0	38.2	37.7	-----	61.0	43.9	45.8

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Apr.	Mar.	Apr.	Apr. 15—		Mar.	Apr.	Apr.	Mar.	Apr.
		15, 1923	15, 1924	15, 1924	1913	1923	15, 1924	15, 1924	15, 1923	15, 1924	15, 1924
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	37.4	40.9	40.9	24.7	34.3	35.6	35.9	30.5	32.1	32.7
Round steak	do	31.1	34.2	34.4	20.8	30.9	31.4	31.9	20.6	29.8	30.2
Rib roast	do	30.8	33.5	33.1	17.1	25.1	25.5	26.5	23.0	23.1	23.6
Chuck roast	do	18.7	21.3	21.8	15.4	19.1	20.1	20.1	19.0	19.9	20.1
Plate beef	do	13.6	14.7	15.2	10.4	10.4	10.5	10.4	12.8	12.8	12.5
Pork chops	do	28.4	25.5	26.7	20.4	25.8	25.2	27.4	26.3	25.1	25.9
Bacon, sliced	do	36.0	31.6	31.5	28.0	45.9	42.2	40.9	40.4	39.0	40.0
Ham, sliced	do	38.5	37.0	37.0	29.0	49.4	45.9	46.9	45.4	44.3	44.6
Lamb, leg of	do	38.5	39.4	40.9	17.5	36.3	36.7	40.3	34.4	34.6	35.6
Hens	do	37.5	35.3	35.3	19.8	31.3	31.1	31.3	31.4	31.8	32.8
Salmon, canned, red	do	29.5	28.7	28.9		33.6	32.9	32.8	32.3	32.1	31.9
Milk, fresh	Quart	17.0	17.0	17.0	8.2	11.0	12.2	12.2	10.8	12.2	12.0
Milk, evaporated	15-16 oz. can	11.3	11.6	10.9		12.3	12.1	12.1	12.1	12.0	11.8
Butter	Pound	57.3	61.3	53.1	33.8	54.4	54.0	45.5	53.4	53.6	46.2
Oleomargarine	do	28.3	31.7	30.0		29.1	29.2	28.9	29.3	31.1	30.4
Nut margarine	do	27.2	27.0	27.2		27.8	28.6	28.8	27.2	29.3	28.8
Cheese	do	32.3	32.7	31.4	22.5	36.0	35.2	33.7	37.5	36.7	34.8
Lard	do	16.5	15.9	15.5	17.3	18.9	19.2	19.0	17.2	18.2	17.6
Vegetable lard substitute	do	17.2	19.4	19.4		23.5	26.2	26.0	24.2	26.3	26.3
Eggs, strictly fresh	Dozen	31.3	35.8	27.6	20.5	29.9	28.3	25.7	28.4	29.5	25.0
Bread	Pound	7.9	7.9	7.9	5.2	9.8	9.6	9.6	8.0	8.6	8.6
Flour	do	4.8	4.4	4.5	2.9	4.3	3.9	3.8	4.7	4.6	4.6
Corn meal	do	3.5	4.0	4.1	2.3	3.5	4.0	4.1	3.7	4.0	4.1
Rolled oats	do	8.1	8.0	8.0		9.9	10.6	10.2	9.2	9.0	9.0
Corn flakes	8-oz. pkg.	9.6	9.0	9.2		10.2	9.7	9.7	10.1	9.9	10.0
Wheat cereal	28-oz. pkg.	23.9	23.3	23.4		23.9	24.4	24.4	26.1	25.2	25.2
Macaroni	Pound	19.8	19.6	19.8		20.7	20.2	20.2	19.5	19.2	19.2
Rice	do	9.6	10.0	10.0	8.5	8.6	9.3	8.8	9.4	9.8	9.7
Beans, navy	do	10.8	9.5	9.2		12.2	10.1	9.9	12.5	9.1	9.5
Potatoes	do	2.6	3.0	2.8	1.3	1.8	2.5	2.4	2.0	2.3	2.3
Onions	do	7.0	6.4	5.9		6.3	6.2	6.0	7.6	7.0	6.9
Cabbage	do	7.5	6.4	7.0		9.1	5.9	6.2	9.8	6.0	6.2
Beans, baked	No. 2 can	10.3	10.1	9.9		15.3	14.6	14.4	13.3	12.9	12.9
Corn, canned	do	15.3	16.1	16.0		15.9	16.6	16.5	14.6	13.8	14.0
Peas, canned	do	18.3	19.0	18.9		16.9	16.5	16.2	17.1	17.6	17.3
Tomatoes, canned	do	11.9	11.3	11.5		13.9	14.1	13.9	14.2	14.1	14.3
Sugar, granulated	Pound	9.9	9.8	9.2	5.8	10.8	10.5	10.1	11.4	10.9	10.6
Tea	do	78.3	81.5	81.5	56.0	74.2	76.9	76.9	61.4	62.5	62.9
Coffee	do	37.6	37.5	39.4	30.0	41.2	44.1	44.4	37.7	39.6	40.9
Prunes	do	18.7	16.2	15.5		20.4	18.6	17.4	21.4	21.2	20.8
Raisins	do	17.5	15.5	15.3		19.9	17.6	17.5	19.6	16.6	16.4
Bananas	Dozen	34.6	36.1	33.9		12.3	13.7	11.6	10.8	13.3	10.4
Oranges	do	46.8	34.5	35.9		50.3	37.6	37.1	52.2	40.1	41.2

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

RETAIL PRICES OF FOOD

53

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

INCIPAL

ria, Ill.

Mar.
15,
1924

Cts.
32.1
29.8
23.1
19.9
12.8
25.1
39.0
44.3
34.6
31.8

Cts.
32.1
29.8
23.1
19.9
12.8
25.1
39.0
44.3
34.6
31.8

Cts.
32.1
29.8
23.1
19.9
12.8
25.1
39.0
44.3
34.6
31.8

Cts.
32.1
29.8
23.1
19.9
12.8
25.1
39.0
44.3
34.6
31.8

Cts.
32.1
29.8
23.1
19.9
12.8
25.1
39.0
44.3
34.6
31.8

her cities

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.				Portland, Oreg.				Providence, R. I.			
Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924
1913	1923			1913	1923			1913	1923			1913	1923			1913	1923		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
32.1	32.7	47.1	49.1	50.3	27.0	42.2	42.6	44.3	56.1	55.8	57.7	22.4	28.4	29.1	29.3	40.0	64.7	69.1	69.9
29.8	30.2	36.9	38.3	39.4	23.2	35.1	35.0	35.8	43.9	43.8	45.9	20.0	24.7	25.7	26.0	31.2	44.5	47.0	47.7
23.1	23.6	31.4	33.2	33.8	21.5	30.4	32.3	32.6	27.8	29.4	30.3	18.7	23.6	24.8	24.9	25.0	35.0	37.0	37.8
19.9	20.1	17.3	20.9	22.0	16.7	21.0	22.0	22.5	18.2	19.6	19.6	15.6	17.0	17.7	17.5	19.4	25.6	27.1	27.8
12.8	12.5	9.8	11.1	10.8	12.8	11.1	11.6	11.3	13.3	15.2	15.9	13.1	12.2	12.7	13.0	-----	15.8	18.2	18.4
25.1	25.9	22.4	30.0	31.0	23.2	30.4	29.4	31.0	29.2	26.8	30.2	21.0	30.1	27.2	27.3	22.6	30.7	30.2	34.2
39.0	40.0	25.4	36.2	34.5	34.1	28.1	40.1	39.8	39.7	37.6	35.8	35.8	30.0	43.9	40.7	40.8	22.4	36.4	34.7
44.3	44.6	30.7	50.7	47.3	47.9	29.8	53.3	51.4	52.6	46.6	45.4	45.9	29.7	47.2	46.2	45.5	53.1	51.6	52.3
34.6	35.6	20.8	38.3	38.4	39.5	22.0	38.5	39.2	40.0	35.5	37.3	40.2	19.2	34.1	34.4	34.9	21.7	40.5	41.8
31.8	32.8	22.7	38.8	38.4	28.0	41.1	42.1	42.3	41.1	39.6	40.4	21.5	33.6	32.4	33.8	23.6	41.8	40.4	41.9
32.1	31.9	26.6	26.1	25.6	-----	29.3	27.7	27.8	27.6	27.5	-----	36.8	36.0	36.0	-----	31.3	30.3	30.3	-----
12.2	12.0	8.0	12.0	12.0	8.8	14.0	14.0	14.0	13.5	14.0	14.0	9.3	12.6	11.8	11.8	9.0	14.0	13.0	12.0
12.0	11.8	12.4	12.1	12.0	-----	19.1	11.8	11.5	13.4	13.6	12.8	-----	12.0	11.0	11.0	-----	12.7	12.4	12.4
33.6	46.2	47.3	61.2	62.2	54.4	42.6	55.7	59.5	50.5	63.0	62.3	55.7	40.0	51.7	55.6	45.7	43.4	58.5	58.9
31.1	30.4	29.5	31.6	30.6	-----	28.3	31.0	30.3	30.8	31.9	32.5	-----	28.8	29.8	29.3	-----	30.9	29.1	29.8
29.3	28.8	27.8	28.3	27.6	-----	26.8	28.7	28.7	27.7	28.2	28.2	-----	28.7	29.2	28.8	-----	28.3	28.9	28.6
36.7	34.8	25.0	38.6	38.0	37.1	24.5	37.8	39.0	38.1	39.3	38.4	37.6	20.5	34.6	37.9	37.8	22.3	36.8	36.2
18.2	17.6	15.3	16.2	16.0	16.1	15.4	15.7	16.7	16.2	18.1	17.5	16.9	18.4	10.9	19.3	19.3	15.2	17.0	17.3
26.3	26.3	22.7	24.6	24.9	-----	23.3	24.8	25.2	32.5	23.6	23.9	-----	25.0	27.7	27.6	-----	23.1	25.5	25.5
29.5	25.0	24.9	34.8	36.6	32.7	24.1	34.8	37.6	33.6	41.1	42.6	38.4	25.0	27.9	26.8	29.5	29.5	42.7	42.4
8.6	8.6	4.8	8.4	8.5	5.4	8.5	8.5	8.5	9.3	9.3	9.3	5.6	9.4	9.2	9.1	6.0	8.8	8.7	8.7
4.6	4.6	3.1	4.7	4.6	4.7	3.1	4.6	4.4	4.3	4.8	4.5	4.4	2.9	4.7	4.0	3.4	5.2	5.0	5.1
4.0	4.1	2.7	3.7	4.2	4.1	2.7	4.0	4.6	4.6	4.5	4.7	4.7	3.3	3.6	4.0	4.2	2.9	4.1	4.3
9.0	9.0	8.2	8.2	8.1	-----	8.9	9.0	8.8	7.0	6.9	6.9	-----	9.5	9.3	9.3	-----	9.5	9.3	9.2
9.9	10.0	9.0	8.8	8.8	-----	9.6	9.5	9.5	9.7	9.7	9.7	-----	11.4	11.4	11.5	-----	9.9	9.7	9.7
2	25.2	23.9	23.7	23.7	-----	25.3	24.3	24.1	24.5	24.6	24.6	-----	27.0	25.9	25.9	-----	24.2	24.2	24.1
2	12.2	21.0	20.5	20.3	-----	21.5	20.8	20.8	23.8	23.7	24.0	-----	18.4	18.1	18.1	-----	22.0	23.4	23.7
9.8	9.7	9.8	10.5	10.5	9.2	9.6	10.2	10.1	10.7	10.6	10.8	8.6	9.1	9.8	10.1	9.3	9.5	9.5	9.6
9.1	9.5	11.6	9.9	10.2	-----	11.6	9.4	9.3	11.3	10.1	9.8	-----	10.0	9.8	9.8	-----	11.2	10.2	9.9
2.3	2.3	2.1	3.2	3.2	1.5	3.4	2.6	2.6	2.9	2.7	2.7	0.5	1.3	2.2	2.8	1.5	2.9	2.8	2.8
7.0	6.9	6.5	5.1	4.9	-----	6.3	5.9	6.0	6.9	5.9	5.9	-----	4.6	3.9	4.5	-----	6.6	6.0	5.9
6.0	6.2	8.1	7.0	8.0	-----	8.7	7.1	7.7	5.6	5.1	6.4	-----	8.0	6.4	8.9	-----	9.4	7.1	7.4
2.9	12.9	11.3	11.2	11.4	-----	12.5	12.5	12.5	16.0	15.2	15.5	-----	16.3	14.9	14.9	-----	12.4	12.1	12.1
3.8	14.0	14.9	15.0	14.9	-----	14.8	15.9	16.0	16.3	16.8	16.8	-----	17.3	19.0	19.0	-----	17.2	17.4	17.3
7.6	17.3	16.6	16.3	16.4	-----	16.4	17.6	17.5	20.2	20.2	20.2	-----	16.4	18.8	18.8	-----	20.1	20.0	20.0
4.1	14.3	12.6	11.8	11.7	-----	12.7	13.1	13.2	22.9	14.1	13.9	-----	16.4	16.7	16.7	-----	13.8	12.5	12.6
9.9	10.6	4.9	9.9	9.8	5.3	10.4	10.4	10.0	10.8	10.3	9.9	6.1	10.5	10.5	10.2	5.0	10.4	10.3	9.8
2.5	62.9	54.0	58.6	60.4	58.0	75.4	75.5	75.9	58.1	60.5	61.1	55.0	64.6	71.1	71.1	48.3	61.4	58.4	58.8
9.6	40.9	25.0	32.6	34.1	36.3	30.0	37.5	41.0	41.9	41.4	45.3	46.5	35.0	37.1	43.2	44.3	30.0	41.7	46.7
2	20.8	17.0	15.7	15.4	-----	20.8	18.9	19.5	18.5	16.5	15.7	-----	13.7	10.3	10.5	-----	19.9	18.4	18.3
6.6	16.4	16.9	15.0	15.0	-----	18.2	14.7	14.8	17.2	14.1	13.9	-----	18.2	14.5	14.3	-----	17.7	15.1	15.2
3.3	10.4	32.3	33.7	32.1	-----	42.8	43.5	42.8	11.2	12.1	10.6	-----	15.8	16.4	16.7	-----	32.5	34.5	31.7
4.1	41.2	51.5	37.5	40.5	-----	53.4	41.8	46.4	51.6	38.5	42.9	-----	43.9	36.7	40.8	-----	56.5	41.2	43.7

1 No. 3 can.

1 No. 2½ can.

4 Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Richmond, Va.				Rochester, N. Y.			St. Louis, Mo.			
		Apr. 15—		Mar.	Apr.	Apr.	Mar.	Apr.	Apr. 15—		Mar.	Apr.
		1913	1923	15, 1924	15, 1924	15, 1923	15, 1924	15, 1924	1913	1923	15, 1924	15, 1924
Sirloin steak	Pound	Cts. 21.8	Cts. 38.2	Ct. 38.7	Cts. 39.3	Cts. 36.6	Cts. 39.2	Cts. 40.1	Cts. 23.4	Cts. 33.6	Cts. 35.0	Cts. 35.3
Round steak	do	19.6	33.3	35.1	35.1	31.2	32.9	32.8	21.4	31.6	32.5	32.6
Rib roast	do	18.9	29.7	30.3	30.9	27.5	29.0	29.2	19.1	26.7	28.2	28.6
Chuck roast	do	15.3	22.3	21.9	22.1	21.9	22.8	22.9	14.7	17.7	19.1	19.1
Plate beef	do	12.9	15.7	15.6	15.6	11.7	12.1	12.1	10.9	12.7	13.1	12.7
Pork chops	do	21.2	28.2	27.3	27.9	30.4	28.2	30.2	18.8	23.7	23.5	25.3
Bacon, sliced	do	24.4	34.5	30.5	30.5	34.8	32.8	32.8	24.3	38.0	35.3	35.3
Ham, sliced	do	25.7	38.3	36.8	36.7	43.3	43.8	44.4	25.7	43.5	42.6	43.2
Lamb, leg of	do	19.7	42.0	43.6	45.0	37.6	36.6	38.5	17.3	35.4	35.4	37.7
Hens	do	22.1	37.8	35.8	34.8	41.3	39.9	39.8	19.1	32.5	32.5	32.7
Salmon, canned, red	do		30.0	31.6	32.5	29.2	29.0	28.9		31.5	32.4	32.4
Milk, fresh	Quart	10.0	14.0	14.0	14.0	13.0	12.5	12.5	8.0	13.0	13.0	13.0
Milk, evaporated	15-16 oz. can.		13.2	13.6	13.4	12.1	12.1	11.9		11.2	11.1	10.5
Butter	Pound	44.2	64.6	65.9	57.2	58.8	55.9	52.6	38.8	57.9	59.3	59.2
Oleomargarine	do		29.6	30.6	29.6	29.8	31.2	31.1		26.9	27.9	27.9
Nut margarine	do		27.9	29.6	29.6	27.1	28.7	28.5		24.6	25.2	25.3
Cheese	do	22.3	36.3	36.5	34.7	36.6	37.4	36.5	19.3	34.0	34.0	32.2
Lard	do	15.0	17.8	17.1	17.1	17.2	17.2	17.1	13.8	14.2	13.3	13.6
Vegetable lard substitute	do		23.1	24.6	24.6	20.8	22.2	22.4		22.4	24.9	25.2
Eggs, strictly fresh	Dozen	21.4	31.9	32.9	28.8	35.1	38.3	33.2	19.4	31.4	30.2	29.5
Bread	Pound	5.3	9.2	8.6	8.6	8.0	8.1	8.1	5.6	8.9	8.9	8.9
Flour	do	3.3	4.9	4.5	4.6	4.9	4.5	4.6	2.9	4.2	4.2	4.2
Corn meal	do	2.0	4.2	4.5	4.5	4.7	5.0	4.9	2.1	3.3	3.8	3.8
Rolled oats	do		9.3	9.1	9.1	8.7	8.4	8.4		8.0	8.4	8.5
Corn flakes	8-oz. pkg.		9.6	9.6	9.6	9.7	9.5	9.5		9.1	9.0	9.0
Wheat cereal	28-oz. pkg.		26.2	25.3	25.3	23.9	24.0	24.0		23.5	23.6	23.6
Macaroni	Pound		21.8	20.7	20.6	18.9	18.3	18.3		19.7	20.1	20.3
Rice	do	9.8	11.1	11.3	11.3	9.5	10.0	10.3	8.3	8.7	9.2	9.2
Beans, navy	do		12.3	10.8	10.4	11.1	10.0	9.6		11.3	8.9	8.7
Potatoes	do	1.7	2.9	3.4	3.2	2.2	2.1	2.1	1.2	2.5	2.7	2.7
Onions	do		6.2	6.8	7.0	6.1	5.7	6.1		6.8	5.5	5.4
Cabbage	do		9.3	7.5	7.0	7.6	5.8	7.4		8.1	4.8	5.1
Beans, baked	No. 2 can		11.8	11.6	11.2	11.4	11.2	11.2		11.3	11.3	11.1
Corn, canned	do		15.8	14.7	15.0	16.6	16.0	16.2		15.0	15.4	15.6
Peas, canned	do		19.2	20.1	20.3	19.3	19.3	19.3		16.7	17.4	17.1
Tomatoes, canned	do		12.1	11.8	11.8	12.9	13.4	13.4		11.8	12.8	12.9
Sugar, granulated	Pound	5.1	10.7	10.4	9.9	10.1	9.9	9.5	4.9	10.4	10.4	10.0
Tea	do	56.0	79.5	83.2	81.8	62.7	63.6	63.6	55.0	67.0	70.7	69.9
Coffee	do	26.8	38.5	39.5	39.5	36.3	36.6	37.1	24.3	36.0	39.9	40.3
Prunes	do		22.8	19.6	18.9	19.9	19.0	18.4		20.8	20.9	20.3
Raisins	do		18.3	15.0	15.0	16.9	14.3	14.2		17.2	15.6	15.8
Bananas	Dozen		39.2	40.0	40.4	43.2	44.0	44.0		29.0	34.4	30.0
Oranges	do		48.5	35.4	34.6	51.4	39.3	43.2		48.8	40.8	43.3

¹ No. 2½ can.

RETAIL PRICES OF FOOD

55

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

PRINCIPAL

St. Paul, Minn.

Mar. 15, 1924

Apr. 15, 1924

Cts.

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Salt Lake City, Utah

Mar. 15, 1924

Apr. 15, 1924

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San Francisco, Calif.

Mar. 15, 1924

Apr. 15, 1924

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Savannah, Ga.

Mar. 15, 1924

Apr. 15, 1924

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Scranton, Pa.

Mar. 15, 1924

Apr. 15, 1924

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Cts.

* Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Concluded

Article	Unit	Seattle, Wash.				Springfield, Ill.				Washington, D. C.			
		Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	Apr. 15, 1923	Mar. 15, 1924	Apr 15, 1924	Apr. 15—		Mar. 15, 1924	Apr. 15, 1924	
		1913	1923						1913	1923			
Sirloin steak	Pound	Cts. 22.6	Cts. 30.8	Cts. 32.4	Cts. 32.5	Cts. 32.5	Cts. 33.7	Cts. 34.1	Cts. 27.3	Cts. 41.7	Cts. 43.2	Cts. 43.1	
Round steak	do.	20.6	26.5	27.8	27.7	31.4	32.9	33.3	24.1	34.9	36.1	36.6	
Rib roast	do.	18.6	25.1	26.2	25.4	22.5	22.5	22.6	22.0	33.0	33.5	33.5	
Chuck roast	do.	15.6	16.1	18.0	17.9	18.6	19.9	20.1	17.4	22.7	23.4	23.8	
Plate beef	do.	11.7	12.6	13.9	13.5	12.5	12.7	12.7	11.7	12.3	13.1	13.3	
Pork chops	do.	24.4	33.2	30.6	30.5	24.8	24.1	25.2	22.8	30.4	27.9	29.8	
Bacon, sliced	do.	31.3	48.0	44.8	45.0	39.3	37.3	37.5	26.5	38.0	31.9	32.1	
Ham, sliced	do.	30.0	50.0	48.3	49.8	43.2	43.0	43.6	20.0	54.3	51.8	51.8	
Lamb, leg of	do.	20.4	34.1	34.6	36.7	39.4	40.7	42.1	23.3	40.8	40.3	43.2	
Hens	do.	24.0	32.0	33.7	33.2	33.7	32.3	32.1	22.8	40.5	39.2	39.5	
Salmon, canned, red	do.		31.0	30.3	30.3	32.7	34.6	34.4		28.2	27.9	27.7	
Milk, fresh	Quart	8.6	12.0	12.0	12.0	11.1	12.5	12.5	9.0	14.0	15.0	15.0	
Milk, evaporated	15-16 oz. can		11.0	10.7	10.7	12.9	12.9	12.4		12.1	12.4	12.0	
Butter	Pound	40.0	51.8	57.0	46.3	56.0	58.3	49.1	43.3	61.3	60.7	53.5	
Oleomargarine	do.		28.5	30.5	30.0	28.6	31.6	31.0		28.7	30.6	30.4	
Nut margarine	do.		28.7	29.8	29.9	27.3	30.0	29.1		27.4	28.8	28.6	
Cheese	do.	21.6	36.0	35.5	35.5	37.3	38.0	37.3	23.5	38.1	38.3	37.7	
Lard	do.	17.7	19.1	18.8	18.6	17.0	17.6	17.5	14.7	17.3	16.7	16.5	
Vegetable lard substitute	do.		24.6	27.8	27.5	24.0	27.6	27.0		23.3	24.9	24.9	
Eggs, strictly fresh	Dozen	25.0	31.4	30.8	30.8	29.8	29.7	26.1	22.6	32.8	34.8	31.6	
Bread	Pound	5.5	9.9	9.8	9.8	9.3	10.2	10.2	5.6	8.2	9.0	9.0	
Flour	do.	3.0	4.7	4.2	4.1	5.1	4.6	4.6	3.7	5.1	4.8	4.7	
Corn meal	do.	3.0	4.0	4.2	4.3	4.4	5.0	4.9	2.5	4.0	4.3	4.3	
Rollod oats	do.		8.7	8.7	8.8	10.6	10.7	10.6		9.0	9.1	9.3	
Corn flakes	8-oz. pkg.		11.6	11.7	11.5	10.1	10.5	10.3		9.4	9.4	9.4	
Wheat cereal	28-oz. pkg.		24.6	25.4	25.0	25.6	25.3	25.3		24.5	23.8	23.9	
Macaroni	Pound		18.3	18.1	18.2	19.4	19.8	19.0		21.4	21.1	20.8	
Rice	do.	7.7	11.2	11.7	11.7	9.8	10.5	10.3	9.4	10.4	10.2	10.5	
Beans, navy	do.		10.9	10.4	10.3	12.1	9.3	8.9		11.9	9.6	9.5	
Potatoes	do.	.8	1.8	2.4	3.1	2.4	2.6	2.5	1.5	2.8	2.8	2.8	
Onions	do.		5.6	4.8	5.0	8.0	6.7	7.1		6.6	6.3	6.4	
Cabbage	do.		7.2	6.7	9.7	10.7	6.0	7.6		9.2	7.8	7.4	
Beans, baked	No. 2 can		15.4	16.2	16.1	13.3	13.2	13.2		11.7	11.8	11.7	
Corn, canned	do.		17.1	17.6	17.9	14.7	14.8	14.8		14.7	14.7	14.7	
Peas, canned	do.		18.4	19.5	19.7	17.8	18.1	17.9		15.5	16.5	16.5	
Tomatoes, canned	do.		¹ 15.8	¹ 16.4	¹ 16.4	14.6	14.0	14.6		11.6	10.9	11.0	
Sugar, granulated	Pound	5.9	11.1	10.8	10.5	11.3	11.6	11.0	4.9	10.0	9.8	9.2	
Tea	do.	50.0	66.6	74.8	75.0	70.6	77.5	77.5	57.5	77.2	76.3	76.2	
Coffee	do.	28.0	39.5	43.4	43.3	38.4	38.5	40.2	28.8	35.2	36.9	38.4	
Prunes	do.		17.9	14.3	14.3	20.6	18.8	17.9		22.9	19.2	19.3	
Raisins	do.		18.4	15.6	15.6	19.0	16.5	16.4		17.4	15.0	15.0	
Bananas	Dozen		² 16.2	² 15.7	² 15.7	² 10.6	² 12.7	² 8.9		37.3	40.0	37.5	
Oranges	do.		45.9	40.9	43.3	53.4	35.2	43.4		53.9	37.3	37.7	

¹ No. 2½ can.² Per pound.

Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food⁷ in April, 1924, compared with the average cost in the year 1913, in April, 1923, and in March, 1924. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. These percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.⁸

Effort has been made by the bureau each month to have perfect reporting cities. For the month of April 99 per cent of all the firms reporting in the 51 cities sent in a report promptly. The following were perfect reporting cities; that is, every merchant in the following named 38 cities who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Boston, Bridgeport, Buffalo, Butte, Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Fall River, Houston, Kansas City, Little Rock, Louisville, Manchester, Memphis, Milwaukee, Newark, New Haven, Norfolk, Omaha, Peoria, Philadelphia, Portland, Me., Portland, Oreg., Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, Scranton, Springfield, Washington.

The following summary shows the willingness with which the merchants responded in April, 1924:

RETAIL PRICE REPORTS RECEIVED DURING APRIL, 1924

Item	United States	Geographical division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received.....	99	90	98	99	98	98
Number of cities in each section from which every report was received.....	38	12	5	11	6	4

⁷ For list of articles, see note 2, p. 37.

⁸ The consumption figure used from January, 1913, to December, 1920, for each article in each city is given in the MONTHLY LABOR REVIEW for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month, beginning with January, 1921, are given in the MONTHLY LABOR REVIEW for March, 1921, p. 26.

TABLE 6.—PERCENTAGE CHANGES IN THE RETAIL COST OF FOOD IN APRIL, 1924, COMPARED WITH THE COST IN MARCH, 1924, APRIL, 1923, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percent- age in- crease April, 1924, com- pared with 1913	Percentage de- crease April, 1924, compared with—		City	Percent- age in- crease April, 1924, com- pared with 1913	Percentage de- crease April, 1924, compared with—	
		April, 1923	March, 1924			April, 1923	March, 1924
Atlanta.....	40	1	0	Milwaukee.....	45	¹ 0.3	2
Baltimore.....	46	1	2	Minneapolis.....	39	3	3
Birmingham.....	46	1	1	Mobile.....	—	1	1
Boston.....	42	3	2	Newark.....	39	1	2
Bridgeport.....	—	3	3	New Haven.....	41	1	3
Buffalo.....	42	3	3	New Orleans.....	40	2	3
Butte.....	—	¹ 0.2	1	New York.....	46	3	1
Charleston.....	46	1	2	Norfolk.....	—	2	3
Chicago.....	50	¹ 1	2	Omaha.....	40	1	2
Cincinnati.....	41	0.1	2	Peoria.....	—	¹ 0.3	2
Cleveland.....	40	2	1	Philadelphia.....	42	2	2
Columbus.....	—	¹ 1	2	Pittsburgh.....	43	1	2
Dallas.....	41	0.3	2	Portland, Me.....	—	3	1
Denver.....	29	3	1	Portland, Oreg.....	30	¹ 1	0.1
Detroit.....	46	2	2	Providence.....	43	3	3
Fall River.....	37	6	5	Richmond.....	48	4	3
Houston.....	—	2	1	Rochester.....	—	2	1
Indianapolis.....	36	2	1	St. Louis.....	43	1	2
Jacksonville.....	36	0.1	2	St. Paul.....	—	2	1
Kansas City.....	39	1	1	Salt Lake City.....	22	¹ 0.4	0.1
Little Rock.....	35	3	¹ 0.1	San Francisco.....	40	¹ 2	1
Los Angeles.....	40	¹ 2	0.4	Savannah.....	—	3	1
Louisville.....	33	0.2	2	Scranton.....	43	4	3
Manchester.....	41	3	2	Seattle.....	37	¹ 1	1
Memphis.....	35	2	1	Springfield, Ill.....	—	¹ 1	2
				Washington, D. C.....	46	2	2

¹ Increase.Retail Prices of Coal in the United States ¹

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, April 15, 1923, and March 15 and April 15, 1924, for the United States and for each of the cities from which prices have been obtained. Prices for coal are secured from the cities from which monthly retail prices of food are received.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds used. The coal dealers in each city are asked to quote prices on the kinds of bituminous coal usually sold for household use.

The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bins where an extra handling is necessary.

¹ Prices of coal were formerly secured semiannually and published in the March and September issues of the MONTHLY LABOR REVIEW. Since June, 1920, these prices have been secured and published monthly.

RETAIL PRICES OF COAL

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AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, APRIL 15, 1923, AND MARCH 15 AND APRIL 15, 1924

City, and kind of coal	1913		1923	1924	
	Jan. 15	July 15	Apr. 15	Mar. 15	Apr. 15
United States:					
Pennsylvania anthracite—					
Stove.....	\$7.99	\$7.46	\$15.07	\$15.72	\$15.04
Chestnut.....	8.15	7.68	15.07	15.70	15.04
Bituminous.....	5.48	5.39	10.46	9.53	9.11
Atlanta, Ga.:					
Bituminous.....	5.88	4.83	8.35	8.13	7.21
Baltimore, Md.:					
Pennsylvania anthracite—					
Stove.....	17.70	17.24	115.75	116.75	115.50
Chestnut.....	17.93	17.49	115.75	116.50	115.25
Bituminous.....			9.00	7.70	7.75
Birmingham, Ala.:					
Bituminous.....	4.22	4.01	7.45	8.15	7.34
Boston, Mass.:					
Pennsylvania anthracite—					
Stove.....	8.25	7.50	15.00	15.50	15.50
Chestnut.....	8.25	7.75	15.00	15.50	15.50
Bridgeport, Conn.:					
Pennsylvania anthracite—					
Stove.....			15.00	16.50	15.00
Chestnut.....			15.00	16.50	15.00
Buffalo, N. Y.:					
Pennsylvania anthracite—					
Stove.....	6.75	6.54	13.24	13.63	13.00
Chestnut.....	6.99	6.80	13.24	13.63	13.00
Butte, Mont.:					
Bituminous.....			10.90	10.98	10.89
Charleston, S. C.:					
Pennsylvania anthracite—					
Stove.....	18.38	17.75	117.25	117.00	116.50
Chestnut.....	18.50	18.00	117.10	117.10	117.10
Bituminous.....	16.75	16.75	12.00	12.00	12.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.80	15.73	16.75	16.08
Chestnut.....	8.25	8.05	15.69	16.75	16.08
Bituminous.....	4.97	4.65	8.84	8.56	8.06
Cincinnati, Ohio:					
Bituminous.....	3.50	3.38	8.65	7.72	7.22
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove.....	7.50	7.25	14.58	15.41	14.25
Chestnut.....	7.75	7.50	14.58	15.41	14.25
Bituminous.....	4.14	4.14	9.99	8.42	8.07
Columbus, Ohio:					
Bituminous.....			8.63	7.24	6.69
Dallas, Tex.:					
Arkansas anthracite—					
Egg.....			16.25	17.75	17.25
Bituminous.....	8.25	7.21	14.46	14.68	14.68
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed.....	8.88	9.00	16.00	16.75	15.50
Stove, 3 and 5 mixed.....	8.50	8.50	16.00	16.75	15.50
Bituminous.....	5.25	4.88	9.78	8.51	8.57
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.45	15.75	15.88	15.50
Chestnut.....	8.25	7.65	15.75	15.88	15.50
Bituminous.....	5.20	5.20	11.32	9.52	9.45
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove.....	8.25	7.43	15.50	16.00	15.50
Chestnut.....	8.25	7.61	15.42	16.00	15.50
Houston, Tex.:					
Bituminous.....			10.67	13.17	12.00
Indianapolis, Ind.:					
Pennsylvania anthracite—					
Stove.....	8.95	8.00	15.88	16.75	16.75
Chestnut.....	9.15	8.25	15.88	16.75	16.75
Bituminous.....	3.81	3.70	8.37	7.12	7.01
Jacksonville, Fla.:					
Bituminous.....	7.50	7.00	14.00	13.00	13.00

¹ Per ton of 2,240 pounds.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, APRIL 15, 1923, AND MARCH 15 AND APRIL 15, 1924—Continued

City, and kind of coal	1913		1923	1924	
	Jan. 15	July 15	Apr. 15	Mar. 15	Apr. 15
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace			\$14.88	\$16.14	\$15.64
Stove, No. 4			16.25	17.25	16.75
Bituminous	\$4.39	\$3.94	8.60	8.46	8.43
Little Rock, Ark.:					
Arkansas anthracite—					
Egg			15.00	15.00	15.00
Bituminous	6.00	5.33	11.00	11.33	10.58
Los Angeles, Calif.:					
Bituminous	13.52	12.50	16.50	15.50	15.40
Louisville, Ky.:					
Bituminous	4.20	4.00	8.68	8.73	7.21
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove	10.00	8.50	17.00	18.00	17.68
Chestnut	10.00	8.50	17.00	17.00	16.33
Memphis, Tenn.:					
Bituminous	¹ 4.34	¹ 4.22	9.38	7.93	7.93
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove	8.00	7.85	16.43	16.68	16.30
Chestnut	8.25	8.10	16.41	16.59	16.15
Bituminous	6.25	5.71	12.19	10.04	10.05
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove	9.25	9.05	17.90	18.12	17.69
Chestnut	9.50	9.30	17.93	18.09	17.48
Bituminous	5.89	5.79	13.29	11.04	10.65
Mobile, Ala.:					
Bituminous			10.29	11.07	9.57
Newark, N. J.:					
Pennsylvania anthracite—					
Stove	6.50	6.25	12.75	13.45	12.79
Chestnut	6.75	6.50	12.75	13.45	12.79
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove	7.50	6.25	14.75	16.00	14.83
Chestnut	7.50	6.25	14.75	16.00	14.83
New Orleans, La.:					
Pennsylvania anthracite—					
Stove	10.00	10.00	21.75	22.00	22.00
Chestnut	10.50	10.50	21.75	22.00	22.00
Bituminous	¹ 6.06	¹ 6.06	11.25	11.14	11.14
New York, N. Y.:					
Pennsylvania anthracite—					
Stove	7.07	6.66	13.67	14.33	13.59
Chestnut	7.14	6.80	13.67	14.33	13.59
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove			17.00	16.00	16.00
Chestnut			17.00	16.00	16.00
Bituminous			13.24	9.00	8.97
Omaha, Nebr.:					
Bituminous	6.63	6.13	11.23	10.20	10.16
Peoria, Ill.:					
Bituminous			6.83	6.35	6.34
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove	¹ 7.16	¹ 6.89	¹ 14.57	¹ 15.57	¹ 14.75
Chestnut	¹ 7.38	¹ 7.14	¹ 14.57	¹ 15.57	¹ 14.64
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Stove	¹ 7.94	¹ 7.38	¹ 16.75	¹ 16.75	¹ 16.09
Chestnut	¹ 8.00	¹ 7.44	¹ 16.88	¹ 16.83	¹ 16.00
Bituminous	¹ 3.16	¹ 3.18	8.46	7.39	7.25
Portland, Me.:					
Pennsylvania anthracite—					
Stove			15.84	16.56	16.08
Chestnut			15.84	16.56	16.08
Portland, Oreg.:					
Bituminous	9.79	9.66	14.41	13.89	13.41

¹ Per ton of 2,240 pounds.

² Per 10-barrel lots (1,800 pounds).

³ Per 25-bushel lots (1,900 pounds).

[1246]

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, APRIL 15, 1923, AND MARCH 15 AND APRIL 15, 1924—Concluded

City, and kind of coal	1913		1923	1924	
	Jan. 15	July 15	Apr. 15	Mar. 15	Apr. 15
Providence, R. I.:					
Pennsylvania anthracite—					
Stove.....	\$8.25	\$7.50	\$15.00	\$16.35	\$15.50
Chestnut.....	8.25	7.75	15.00	16.35	15.50
Richmond, Va.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.25	15.50	16.50	15.50
Chestnut.....	8.00	7.25	15.50	16.50	15.50
Bituminous.....	5.50	4.94	11.84	11.36	8.90
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove.....			13.45	14.10	13.75
Chestnut.....			13.45	14.10	13.65
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove.....	8.44	7.74	16.00	17.13	16.19
Chestnut.....	8.68	7.99	16.19	17.38	16.44
Bituminous.....	3.36	3.04	6.89	7.07	6.36
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove.....	9.20	9.05	17.67	18.14	17.60
Chestnut.....	9.45	9.30	17.64	18.09	17.45
Bituminous.....	6.07	6.04	13.49	11.26	10.85
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed.....	11.00	11.50	15.00	17.50	17.50
Stove, 3 and 5 mixed.....	11.00	11.50	15.00	17.75	17.75
Bituminous.....	5.64	5.46	8.55	7.47	7.43
San Francisco, Calif.:					
New Mexico anthracite—					
Cerrillos egg.....	17.00	17.00	26.75	26.50	26.50
Colorado anthracite—					
Egg.....	17.00	17.00	24.25	24.50	24.50
Bituminous.....	12.00	12.00	17.90	17.33	17.33
Savannah, Ga.:					
Pennsylvania anthracite—					
Stove.....			\$ 17.00	\$ 17.05	\$ 17.05
Chestnut.....			\$ 17.00	\$ 17.05	\$ 17.05
Bituminous.....			\$ 13.17	\$ 12.02	\$ 10.92
Scranton, Pa.:					
Pennsylvania anthracite—					
Stove.....	4.25	4.31	9.82	10.53	10.00
Chestnut.....	4.50	4.56	9.82	10.53	10.00
Seattle, Wash.:					
Bituminous.....	\$ 7.63	\$ 7.70	\$ 10.26	\$ 10.03	\$ 9.87
Springfield, Ill.:					
Bituminous.....			4.98	4.50	4.50
Washington, D. C.:					
Pennsylvania anthracite—					
Stove.....	17.50	17.38	15.39	16.14	15.14
Chestnut.....	17.65	17.53	15.32	16.06	14.90
Bituminous.....			10.46	9.00	8.73

¹ Per ton of 2,240 pounds.

⁴ Fifty cents per ton additional is charged for "binning." Most customers require binning or basketing the coal into the cellar.

⁵ All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

⁶ Prices in Zone A. The cartage charges in Zone A were as follows: January and July, 1913, \$0.50; April, 1923, and March and April, 1924, \$1.25. These charges have been included in the price.

Index Numbers of Wholesale Prices in April, 1924

THE trend of wholesale prices continued downward in April according to information collected in representative markets by the United States Department of Labor through the Bureau of Labor Statistics. The bureau's weighted index number, which includes 404 commodities or price series, declined to 148 for April, compared with 150 for the month before and 159 for April, 1923.

Decreases in prices of foodstuffs and metals were chiefly responsible for the drop in the general price level. Among foods, butter, cheese, milk, eggs, flour, lard, and sugar averaged lower than in March. In the metals group practically all raw materials and semimanufactured products, as well as certain finished products, were lower. Smaller decreases took place also in the groups of cloths and clothing, fuel and lighting, and chemicals and drugs.

Farm products, on the other hand, showed an increase over the price level in March, due to advances in cattle, hogs, sheep, poultry, cotton, hay, potatoes, and peanuts. No change in the general price level was reported for the groups of building materials, house-furnishing goods, and miscellaneous commodities.

Of the 404 commodities or price series for which comparable data for March and April were collected, decreases were shown in 157 instances and increases in 67 instances. In 180 instances no change in price was reported.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES

[1913=100]

Group	April, 1923	1924	
		March	April
Farm products.....	141	137	139
Foods.....	144	141	137
Cloths and clothing.....	205	191	189
Fuel and lighting.....	200	181	179
Metals and metal products.....	154	144	139
Building materials.....	204	182	182
Chemicals and drugs.....	136	130	128
House furnishing goods.....	187	175	175
Miscellaneous.....	126	113	113
All commodities.....	159	150	148

Comparing prices in April, 1924, with those of April, 1923, as measured by changes in the index number, it is seen that the general level has declined almost 7 per cent. In all groups prices averaged lower than in April, 1923, ranging from 1.4 per cent in the case of farm products to 10.5 per cent in the case of fuel and lighting and 10.8 per cent in the case of building materials.

Index Numbers of Wholesale Prices: Farm Products and Foods Compared with All Commodities, 1910 to April, 1924

FLUCTUATIONS in the trend of wholesale prices of farm products and foodstuffs in the United States since 1910 are compared in the following table with the price fluctuations of all commodities, as shown by the weighted index numbers constructed by the Bureau of Labor Statistics. Parallel columns also furnish a comparison for all commodities exclusive of farm products and all commodities exclusive of farm products and foods. The effect of excluding raw cotton from the farm products group is shown in a column of the table. These figures are directly comparable with other index numbers of wholesale prices currently published by the bureau.

INDEX NUMBERS OF WHOLESALE PRICES: FARM PRODUCTS AND FOODS COMPARED WITH ALL COMMODITIES

[1913=100]

Year and month	All commodities	Farm products	Farm products less cotton	All commodities less farm products	Foods	All commodities less farm products and foods
1910.....	101	103	101	100	101	99
1911.....	93	93	92	93	97	91
1912.....	99	101	103	98	104	95
1913.....	100	100	100	100	100	100
1914.....	98	103	104	96	102	93
1915.....	101	104	107	100	105	96
1916.....	127	123	124	128	121	132
1917.....	177	190	191	172	167	175
1918.....	194	218	215	184	188	182
1919.....	206	231	228	196	207	191
1920.....	226	218	212	230	220	236
1921.....	147	124	125	157	144	164
1922.....	149	133	129	155	138	165
1923.....	154	141	130	159	144	168
1924:						
January.....	151	144	128	153	143	160
February.....	152	143	128	155	143	162
March.....	150	137	126	155	141	161
April.....	148	139	126	152	137	159

Wholesale Prices in the United States and Foreign Countries, 1913 to March, 1924

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be directly compared. In some instances the results here shown have been obtained by merely shifting the base to the year 1913; i. e., by dividing the index number for each year or month on the original base by the index number for 1913 on that base as published. In such cases, therefore, these results are to be regarded only as approximations of the correct index numbers. It should be understood, also, that the validity of the comparisons here made is affected by the wide difference in the number of commodities included in the different series of index numbers. The number of countries for which data are given has been considerably enlarged in the table following.

[1249]

WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES

[Index numbers expressed as percentages of the index number for 1913. See text explanation]

Year and month	United States: Bureau of Labor Statistics; 404 commodities (variable)	Canada: Dominion Bureau of Statistics; 238 commodities	Belgium: Ministère l'Industrie et du Travail; 128 commodities	Bulgaria: Director General of Statistics; 38 commodities	Czechoslovakia: Central Bureau of Statistics; 126 commodities	Denmark: Finanstidende; 33 commodities	Finland: Central Bureau of Statistics; 135 commodities	France: Statistique générale; 45 commodities	Germany: Statistisches Reichsamt; 38 commodities (gold)	Great Britain: Board of Trade; 150 commodities
1913.....	100	100		100			100	100	100.0	100
1914.....	98	102	¹ 100	103	² 100	³ 100		102		
1915.....	101	110		137				140		
1916.....	127	132						188		
1917.....	177	179						262		
1918.....	194	199						339		
1919.....	206	209						356		
1920.....	226	244		1,949		382	1,183	509		307
1921.....	147	172		2,006		250	1,283	345		197
1922.....	149	152	367	2,473	1,356	179	1,219	327		159
1923.....	154	153	497	2,525	995	201	1,095	419		159
1921										
Jan.....	170	202		2,392		341	1,223	407		248
Feb.....	160	191		2,135		290	1,188	377		225
Mar.....	155	186		2,437		280	1,203	360		211
Apr.....	148	181		2,006		270	1,249	347		205
May.....	145	171		1,945		257	1,182	329		202
June.....	142	164		1,680		254	1,247	325		198
July.....	141	163		1,721		253	1,259	330		194
Aug.....	142	166	347	1,730		254	1,293	331		190
Sept.....	141	162	368	1,758		224	1,364	344		187
Oct.....	142	156	372	2,062		202	1,361	331		181
Nov.....	141	154	374	2,061		186	1,305	332		173
Dec.....	140	154	369	2,155		188	1,295	326		168
1922										
Jan.....	138	150	366	2,172	1,676	178	1,263	314		164
Feb.....	141	154	356	2,272	1,522	177	1,254	306		162
Mar.....	142	154	350	2,287	1,553	182	1,244	307	80.3	160
Apr.....	143	151	344	2,514	1,492	178	1,260	314		160
May.....	148	152	348	2,695	1,472	177	1,241	317		161
June.....	150	151	356	2,436	1,472	179	1,229	325	93.0	160
July.....	155	152	360	2,489	1,465	180	1,219	325		160
Aug.....	155	150	360	2,526	1,387	180	1,230	331		156
Sept.....	153	145	364	2,531	1,156	178	1,224	329	82.2	154
Oct.....	154	146	385	2,558	1,059	176	1,186	337		155
Nov.....	156	150	408	2,564	1,018	180	1,140	352		158
Dec.....	156	151	407	2,630	1,000	182	1,149	362	81.6	156
1923										
Jan.....	156	151	434	2,657	1,004	181	1,134	387	65.0	157
Feb.....	157	154	474	2,666	1,019	192	1,127	422	84.0	158
Mar.....	159	156	482	2,828	1,028	199	1,108	424	96.8	160
Apr.....	159	157	480	2,757	1,082	200	1,096	415	89.5	162
May.....	156	155	474	2,613	1,060	204	1,093	406	71.9	160
June.....	153	156	484	2,545	1,002	202	1,095	409	74.0	159
July.....	151	154	504	2,408	969	207	1,080	407	88.8	157
Aug.....	150	154	529	2,202	959	207	1,080	413	85.8	155
Sept.....	154	155	514	2,265	958	202	1,089	424	101.7	158
Oct.....	153	153	515	2,263	974	205	1,077	421	117.9	158
Nov.....	152	153	531	2,412	965	207	1,070	443	139.0	161
Dec.....	151	154	545	2,597	984	210	1,096	459	126.2	163
1924										
Jan.....	151	157	580	2,711	991	210	1,071	495	117.3	165
Feb.....	152	157	642	2,658	1,029	223	1,078	544	116.2	167
Mar.....	150	154	625		1,036	227	1,094	500	120.7	165

¹ April.² July.³ July 1, 1912-June 30, 1914.

WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES—Concluded

Year and month	Italy: Riccardo Bachi; 107 commodities ¹	Netherlands: Centraal Bureau voor de Statistiek; 48 commodities ²	Norway: Central Bureau of Statistics; 174 commodities	Spain: Instituto Geografico y Estadístico; 74 commodities	Sweden: Kommerskollegiet; 160 commodities	Switzerland: Dr. J. Lorenz; 71 commodities	Australia: Bureau of Census and Statistics; 92 commodities	New Zealand: Census and Statistics Office; 106 commodities	South Africa: Office of Census and Statistics; 187 commodities	Japan: Bank of Japan, Tokyo; 56 commodities
1913.....	100	100	100	100	100	100	100	100	100	100
1914.....	95	109	-----	101	-----	² 100	² 100	104	97	95
1915.....	133	146	-----	119	-----	-----	141	123	107	97
1916.....	202	226	-----	141	-----	-----	132	134	123	117
1917.....	299	276	-----	166	-----	-----	146	151	141	147
1918.....	409	373	-----	207	-----	-----	170	175	153	193
1919.....	364	304	-----	204	-----	-----	180	178	165	236
1920.....	631	292	-----	221	359	-----	218	212	223	259
1921.....	577	182	-----	190	218	196	167	201	161	200
1922.....	562	160	-----	176	173	168	154	178	129	196
1923.....	575	151	232	172	163	180	170	175	127	199
1921										
Jan.....	642	213	-----	219	272	238	196	216	188	201
Feb.....	613	197	-----	203	256	230	192	210	-----	195
Mar.....	604	188	-----	193	249	219	181	208	-----	191
Apr.....	584	176	-----	191	239	208	171	204	166	190
May.....	547	182	-----	187	230	186	165	201	-----	191
June.....	509	183	-----	186	223	185	162	200	-----	192
July.....	520	176	-----	186	216	179	159	200	150	196
Aug.....	542	180	-----	183	211	177	160	197	-----	199
Sept.....	580	180	-----	183	201	181	160	197	-----	207
Oct.....	599	169	-----	185	194	184	156	195	138	219
Nov.....	595	165	-----	184	189	182	151	191	-----	214
Dec.....	595	165	-----	183	188	178	148	189	-----	209
1922										
Jan.....	577	163	-----	180	181	177	147	186	131	206
Feb.....	562	165	-----	179	179	172	147	181	-----	204
Mar.....	533	164	-----	177	177	172	146	180	-----	201
Apr.....	527	163	-----	180	175	165	148	180	128	197
May.....	523	165	-----	178	175	162	155	177	-----	194
June.....	537	165	-----	178	174	163	156	175	-----	197
July.....	558	164	-----	175	173	164	157	177	126	201
Aug.....	571	156	-----	175	173	165	155	177	-----	195
Sept.....	582	152	-----	174	170	166	158	175	-----	193
Oct.....	601	155	-----	172	169	165	159	174	129	190
Nov.....	596	158	-----	174	163	171	162	176	-----	188
Dec.....	580	155	-----	172	163	172	161	173	-----	183
1923										
Jan.....	575	157	223	170	163	175	163	171	131	184
Feb.....	582	155	222	170	165	175	161	173	-----	192
Mar.....	587	156	228	171	168	181	163	174	-----	196
Apr.....	588	156	229	174	168	186	167	174	126	196
May.....	580	149	232	171	166	187	170	176	-----	199
June.....	569	149	232	170	164	181	178	177	-----	198
July.....	566	145	231	170	162	180	180	176	124	192
Aug.....	567	142	233	171	162	175	175	175	-----	190
Sept.....	569	145	232	174	162	173	172	177	-----	210
Oct.....	563	148	235	171	161	181	171	176	125	212
Nov.....	571	153	243	173	160	182	173	175	-----	209
Dec.....	577	154	247	176	160	183	174	174	-----	210
1924										
Jan.....	571	156	251	178	161	185	174	175	131	211
Feb.....	573	158	261	180	162	186	170	-----	-----	208
Mar.....	579	156	264	-----	162	184	-----	-----	-----	206

¹ July.² 38 commodities prior to 1920; 76 commodities in 1920 and 1921; 100 commodities in 1922.³ 52 commodities in 1920; 53 commodities from August, 1920, to December, 1921.

WAGES AND HOURS OF LABOR

Wages and Hours of Labor in the Boot and Shoe Industry, 1913 to 1924

COMPARATIVE figures of average earnings per hour, average full-time hours per week, and average full-time earnings per week are presented in this article for employees in the principal occupations of the boot and shoe industry in the United States for different years in the period 1913 to 1924. Index numbers (percentages) based on these averages with 1913 taken as a base, or 100, are also presented for the industry as a whole and for each occupation for which 1913 data are available.

The figures for 1924 include 45,651 employees, and are from a survey made by the Bureau of Labor Statistics in 106 representative factories located in 14 States, namely, Massachusetts, New York, Ohio, Pennsylvania, Missouri, New Hampshire, Maine, Illinois, Wisconsin, New Jersey, Michigan, Minnesota, Maryland, and Virginia. These States contain 98 per cent of the wage earners in this industry in the United States. The figures for other years are from prior publications of the bureau. Data were not collected for the years 1915, 1917, 1919, 1921, and 1923.

The data for all years covered were taken by agents of the bureau directly from the pay rolls or other records of the establishments. The number of establishments furnishing data has varied from year to year; 88 establishments were covered in 1913, the initial year of the table; in 1918, 143 establishments furnished data. The 1924 data were taken from the January records of 70 factories, from the February records of 23 factories, from the March records of 6 factories, and from the April records of 7 factories. The mass of the data, therefore, is for January and February.

In the year ending December 31, 1923, the days of operation of 105 of the 106 establishments range from 248 to 307 days. The average was 290 days. One establishment began operation May 16, 1923.

The difference between the average days of operation (290) and a possible full-time of 313 days was due to the following conditions: Six establishments did not operate any Saturday of the year; 32 were closed by lack of orders from 4 to 54 days; 22 were closed for inventory from 1 to 24 days; all were closed for holidays from 3 to 11 days; 32 were closed for vacation, or a continuation of holidays, from 3 to 32 days; and 29 establishments were closed for other causes from 1 to 19 days.

Comparatively few wage changes were made during the period between January 1, 1922, and the period of the 1924 survey. Three establishments increased rates, such increases ranging from 10 per cent for the establishment making the lowest increase to 20 per cent for the one making the highest increase. One establishment made an increase of 30 per cent, followed by a reduction of 10 per cent. One establishment gave an increase of 10 per cent and later made a reduction which restored the previous rate; 4 made reductions ranging

from 10 to 15 per cent; 11 establishments made reductions ranging from 5 to 10 per cent, and later all of the 11 granted increases restoring the rates in effect prior to the reduction. Some establishments made individual wage changes which did not apply to groups of employees or to occupations as a whole. According to the index presented in the first table the general average of earnings per hour in 1924 for the industry as a whole was 114 per cent higher than in 1913, 8 per cent lower than in 1920, and 3 per cent higher than in 1922.

INDEX NUMBERS OF FULL-TIME HOURS PER WEEK, HOURLY EARNINGS, AND FULL-TIME WEEKLY EARNINGS, FOR THE INDUSTRY, BY SPECIFIED YEARS, 1913 TO 1924

[1913=100]

Year	Index numbers of average—		
	Full-time hours per week	Hourly earnings	Full-time weekly earnings
1913.....	100	100	100
1914.....	99	101	100
1916.....	99	108	106
1918.....	95	139	131
1920.....	88	231	202
1922.....	88	208	184
1924.....	89	214	191

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Cutting department									
Cutters, vamp and whole shoe, hand:									
Male.....	1913	71	1,987	54.5	\$0.351	\$19.05	100	100	100
	1914	75	1,812	54.0	.366	19.66	99	104	103
	1916	113	2,355	53.9	.375	20.12	99	107	106
	1918	114	2,319	52.0	.484	25.06	95	138	132
	1920	91	2,050	47.8	.831	40.29	88	236	211
	1922	84	1,915	48.3	.787	38.11	89	224	203
	1924	89	2,014	48.4	.837	40.51	89	238	210
Female.....	1922	2	9	48.0	.612	29.02	-----	-----	-----
	1924	3	14	48.6	.629	30.57	-----	-----	-----
Cutters, vamp and whole shoe, machine:									
Male.....	1913	33	549	55.3	.323	17.77	100	100	100
	1914	40	642	55.3	.325	17.93	100	101	101
	1916	67	1,059	54.9	.331	18.07	99	102	102
	1918	66	1,202	52.2	.444	23.04	94	137	130
	1920	56	942	48.9	.821	37.94	88	250	214
	1922	48	867	49.2	.647	31.99	89	200	180
	1924	53	772	49.9	.688	34.33	90	213	193
Female.....	1920	10	73	53.8	.393	21.69	-----	-----	-----
	1922	8	62	52.5	.433	23.51	-----	-----	-----
	1924	4	45	53.2	.310	16.40	-----	-----	-----
Cutters, trimmings, hand:									
Male.....	1920	87	884	48.0	.454	22.27	-----	-----	-----
	1922	79	747	48.2	.460	22.02	-----	-----	-----
	1924	85	736	48.8	.485	23.67	-----	-----	-----

[1253]

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
<i>Cutting department—Concluded</i>									
Cutters, trimmings, hand—Concluded									
Female.....	1920	11	38	50.1	\$0.283	\$13.98			
	1922	7	42	48.0	.299	14.82			
	1924	5	28	52.2	.341	17.80			
Cutters, trimmings, machine:									
Male.....	1920	37	163	49.1	.430	21.20			
	1922	30	116	50.3	.398	20.05			
	1924	42	187	50.3	.400	20.12			
Female.....	1920	12	66	50.7	.273	13.77			
	1922	7	37	49.8	.323	16.20			
	1924	11	48	49.9	.288	14.37			
Skivers, upper:									
Male.....	1913	32	134	54.5	.299	16.23	100	100	100
	1914	29	116	54.4	.299	16.13	100	100	99
	1916	32	124	54.6	.311	16.93	100	104	104
	1918	23	96	50.9	.423	21.55	93	141	133
	1920	29	87	48.1	.601	28.58	88	193	176
	1922	31	77	47.6	.595	28.48	87	199	182
	1924	29	95	48.0	.619	29.71	88	207	183
Female.....	1913	67	439	54.6	.209	11.38	100	100	100
	1914	77	446	54.1	.209	11.30	99	100	99
	1916	113	591	54.0	.209	11.26	99	100	99
	1918	121	697	51.7	.267	14.73	95	128	129
	1920	105	611	48.7	.439	21.47	89	208	189
	1922	94	539	48.6	.430	20.84	89	206	183
	1924	88	470	49.0	.472	23.13	90	226	203
Cutters, linings, hand:									
Male.....	1920	58	233	47.8	.670	32.88			
	1922	66	229	48.0	.684	32.82			
	1924	73	285	48.4	.685	28.31			
Female.....	1924	2	2	49.0	.413	20.24			
Cutters, linings, machine:									
Male.....	1920	48	111	49.2	.562	27.82			
	1922	42	98	49.6	.552	27.58			
	1924	48	133	49.2	.577	28.39			
Female.....	1922	2	2	51.0	.337	17.01			
	1924	2	2	49.0	.468	22.93			
<i>Sole leather department</i>									
Cutters, outsole:									
Male.....	1913	42	196	55.4	.303	16.69	100	100	100
	1914	47	225	55.0	.302	16.64	99	100	100
	1916	64	345	54.7	.307	16.74	99	101	100
	1918	76	416	52.1	.405	21.02	94	134	125
	1920	60	331	48.4	.718	34.79	87	236	208
	1922	52	264	48.5	.706	34.09	88	233	204
	1924	53	260	48.4	.731	35.38	87	241	212
Cutters, insole:									
Male.....	1920	40	184	48.4	.692	33.55			
	1922	43	193	48.3	.680	32.77			
	1924	38	298	48.4	.709	34.32			
Rounders, outsole or insole:									
Male.....	1920	73	161	48.8	.578	28.21			
	1922	76	158	48.9	.563	27.48			
	1924	80	153	49.1	.591	29.02			
Female.....	1920	8	12	48.5	.411	10.90			
	1922	4	5	48.8	.268	13.04			
	1924	3	5	49.1	.443	21.75			
Channelers, outsole or insole:									
Male.....	1913	75	196	55.4	0.333	18.42	100	100	100
	1914	77	213	55.2	.331	18.24	100	99	99
	1916	107	255	55.0	.340	18.69	99	102	101
	1918	122	268	52.5	.430	22.42	95	129	122
	1920	108	240	48.8	.699	34.23	88	209	186
	1922	89	198	49.3	.649	32.02	89	195	174
	1924	88	207	49.1	.669	32.85	89	201	178
Female.....	1922	4	5	50.0	.421	21.04			
	1924	4	4	48.9	.499	24.40			

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—
Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Sole leather department—Concluded									
Cutters, top and heel lifts, machine:									
Male	1920	47	232	49.0	\$0.513	\$24.95			
	1922	43	364	48.5	.537	25.99			
	1924	33	265	48.3	.512	24.73			
Heel builders, hand:									
Male	1920	15	58	50.1	.568	28.44			
	1922	15	49	50.4	.495	24.74			
	1924	15	22	50.1	.506	25.35			
Female	1920	8	60	46.8	.415	19.40			
	1922	9	34	48.0	.429	20.46			
	1924	7	20	48.6	.477	23.18			
Heel builders, machine:									
Male	1920	37	90	49.2	.470	23.19			
	1922	33	119	48.9	.497	24.29			
	1924	25	71	48.6	.512	24.88			
Female	1920	16	90	47.3	.407	19.38			
	1922	17	214	48.3	.411	19.85			
	1924	16	156	48.1	.449	21.60			
Fitting or stitching department									
Stampers, linings or uppers:									
Male	1920	12	19	48.1	.424	20.59			
	1922	11	14	49.4	.411	20.36			
	1924	21	57	49.7	.367	18.24			
Female	1920	91	281	48.0	.394	19.02			
	1922	90	426	48.6	.369	17.87			
	1924	92	444	46.6	.380	17.71			
Cementers and doublers, hand and machine:									
Male	1920	14	21	47.5	.463	21.78			
	1922	8	29	48.2	.528	25.45			
	1924	18	162	49.6	.332	16.47			
Female	1920	107	1,133	48.6	.357	17.29			
	1922	89	913	48.5	.337	16.36			
	1924	95	1,031	49.1	.328	16.10			
Folders, hand and machine:									
Male	1922	5	20	47.8	.715	33.42			
	1924	6	38	47.3	.709	33.54			
Female	1920	74	769	48.4	.419	20.43			
	1922	71	826	48.4	.413	19.86			
	1924	94	840	48.7	.424	20.65			
Perforators:									
Male	1920	16	22	48.5	.517	24.44			
	1922	28	60	49.0	.482	23.68			
	1924	21	73	49.1	.461	22.64			
Female	1920	82	218	48.2	.435	21.19			
	1922	84	422	48.3	.444	21.43			
	1924	90	295	49.4	.430	21.24			
Tip stitchers:									
Male	1922	6	10	47.5	.546	26.49			
	1924	7	9	47.3	.611	28.90			
Female	1913	79	337	54.7	.219	11.94	100	100	100
	1914	83	348	54.2	.219	11.87	99	100	99
	1916	124	442	54.0	.231	12.45	99	105	104
	1918	125	437	51.8	.288	14.86	95	132	124
	1920	106	355	48.7	.448	21.77	89	204	182
	1922	92	362	48.6	.424	20.68	89	194	173
	1924	86	284	48.9	.475	23.23	89	217	195
Closers or seamers:									
Male	1920	10	19	47.6	.642	30.72			
	1922	8	12	48.2	.487	22.88			
	1924	5	11	48.4	.496	24.00			

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Fitting or stitching department—Contd.									
Closers or seamers—Concluded									
Female.....	1920	97	441	48.8	\$0.399	\$19.48			
	1922	92	409	49.1	.370	18.23			
	1924	98	383	49.3	.397	19.57			
Seam rubbers:									
Male.....	1920	16	28	48.7	.404	19.23			
	1922	18	26	47.6	.348	16.48			
	1924	14	19	48.4	.411	19.89			
Female.....	1920	60	157	49.1	.308	15.21			
	1922	49	99	48.5	.302	14.79			
	1924	53	88	47.8	.323	15.44			
Lining makers:									
Male.....	1922	4	8	46.5	.571	25.29			
	1924	4	5	47.6	.581	27.66			
Female.....	1913	80	854	54.6	.190	10.38	100	100	100
	1914	84	852	54.1	.189	10.21	99	99	98
	1916	126	1,004	53.9	.198	10.69	99	104	103
	1918	132	1,138	51.5	.241	12.35	94	127	119
	1920	112	1,149	48.6	.380	18.40	89	199	177
	1922	97	1,055	48.8	.362	17.71	89	191	171
	1924	100	1,012	49.3	.369	18.19	90	194	175
Closers-on:									
Male.....	1922	3	3	49.3	.752	36.71			
	1924	3	4	49.9	.459	22.90			
Female.....	1913	74	349	54.4	.194	10.53	100	100	100
	1914	77	347	53.9	.193	10.42	99	99	99
	1916	83	360	53.6	.204	10.95	99	105	104
	1918	90	351	52.0	.237	12.28	96	122	117
	1920	47	133	49.4	.363	17.94	91	185	170
	1922	35	129	50.2	.394	19.88	92	203	189
	1924	22	63	49.5	.415	20.55	91	214	195
Top stitchers:									
Male.....	1920	16	57	48.0	.639	30.74			
	1922	19	64	48.1	.657	31.59			
	1924	21	78	47.9	.675	32.33			
Female.....	1913	82	1,070	54.6	.210	11.47	100	100	100
	1914	86	1,076	54.2	.212	11.48	99	101	100
	1916	128	1,427	54.0	.220	11.87	99	105	103
	1918	135	1,364	51.6	.285	14.57	95	136	127
	1920	112	1,187	48.5	.451	21.94	89	213	191
	1922	100	1,195	48.8	.433	21.16	89	206	184
	1924	97	1,184	49.3	.462	22.77	90	220	199
Binders:									
Male.....	1922	5	16	48.5	.683	32.92			
	1924	8	15	47.6	.732	34.84			
Female.....	1920	36	141	50.3	.455	23.03			
	1922	49	257	49.3	.485	23.75			
	1924	65	361	49.1	.478	23.47			
Buttonhole makers:									
Male.....	1922	4	4	50.5	.395	19.45			
Female.....	1913	74	517	54.7	.194	10.60	100	100	100
	1914	80	506	53.9	.198	10.70	99	102	101
	1916	113	466	53.8	.217	11.65	98	112	110
	1918	82	140	52.2	.262	13.62	95	135	128
	1920	46	70	49.3	.397	19.48	90	202	184
	1922	47	83	49.6	.369	18.20	91	190	172
	1924	44	66	49.3	.380	18.73	90	196	177
Button fasteners:									
Male.....	1920	4	8	51.8	.392	20.26			
	1922	4	5	53.3	.316	16.81			
Female.....	1913	72	232	54.8	.199	10.95	100	100	100
	1914	66	198	53.7	.197	10.57	98	99	97
	1916	94	195	53.8	.211	11.32	98	106	103
	1918	64	102	52.7	.230	12.06	96	116	110
	1920	33	44	48.4	.388	18.56	88	194	169
	1922	44	76	49.2	.338	16.51	90	170	151
	1924	38	68	49.4	.332	16.40	90	167	150

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Fitting or stitching department—Concl'd.									
Eyeleters:									
Male	1920	31	75	48.4	\$0.585	\$28.08			
	1922	31	73	48.3	.514	24.64			
	1924	33	68	49.2	.578	28.44			
Female	1918	92	223	51.7	.268	13.64			
	1920	92	232	48.7	.443	21.61			
	1922	71	160	49.2	.415	20.26			
	1924	69	119	49.1	.444	21.80			
Vampers:									
Male	1913	66	554	54.8	.320	17.47	100	100	100
	1914	65	534	54.6	.312	17.04	100	98	98
	1916	82	624	54.6	.333	18.14	100	104	104
	1918	83	573	51.5	.442	22.73	94	138	130
	1920	55	400	47.9	.704	33.85	87	219	194
	1922	52	357	47.8	.628	30.09	87	196	172
	1924	49	304	48.2	.707	34.08	88	221	195
Female	1913	79	1,072	54.7	.246	13.45	100	100	100
	1914	85	1,116	54.1	.243	13.14	99	99	98
	1916	121	1,383	53.9	.254	13.66	99	103	102
	1918	132	1,477	51.7	.312	16.11	95	127	120
	1920	111	1,313	48.8	.512	26.09	89	206	187
	1922	98	1,142	49.0	.480	23.54	90	195	175
	1924	99	1,053	49.4	.519	25.64	90	211	191
Barrers:									
Male	1922	5	6	50.0	.472	23.17			
Female	1920	60	138	48.5	.393	19.21			
	1922	64	110	48.7	.368	17.93			
	1924	62	106	49.1	.393	19.30			
Tongue stitchers:									
Male	1922	1	1	44.0	.965	42.46			
	1924	4	4	48.3	.370	17.87			
Female	1920	69	194	48.8	.350	16.95			
	1922	63	205	48.7	.362	17.75			
	1924	62	159	49.0	.413	20.24			
Fancy stitchers:									
Male	1922	8	18	48.3	.561	27.19			
	1924	19	56	48.3	.615	29.70			
Female	1920	43	179	47.7	.460	22.50			
	1922	75	764	48.6	.444	21.54			
	1924	86	1,467	49.1	.451	22.14			
Backstay stitchers:									
Male	1922	4	9	46.7	.769	35.03			
	1924	5	16	48.5	.682	33.08			
Female	1913	78	389	54.7	.195	10.62	100	100	100
	1914	82	432	54.3	.197	10.68	99	101	101
	1916	125	575	54.0	.213	11.47	99	109	108
	1918	124	560	51.9	.261	13.49	95	134	127
	1920	98	428	48.7	.471	20.52	89	214	193
	1922	83	402	48.8	.378	18.47	89	194	174
	1924	67	267	49.2	.413	20.32	90	212	191
Table workers:									
Male	1922	3	11	49.5	.327	16.11			
	1924	4	4	48.5	.283	13.73			
Female	1920	47	332	47.3	.330	15.78			
	1922	86	797	48.7	.285	13.85			
	1924	80	700	48.6	.302	14.68			
Lacers:									
Male	1920	9	14	48.1	.452	21.48			
	1922	8	12	47.8	.325	14.39			
	1924	7	13	48.0	.430	20.64			
Female	1920	86	193	48.5	.350	16.94			
	1922	71	142	48.5	.367	17.86			
	1924	67	124	49.3	.399	19.67			

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Lasting department									
Last pickers or sorters:									
Male	1920	72	271	48.3	\$0.458	\$22.05			
	1922	81	238	48.8	.426	20.78			
	1924	85	262	48.3	.455	21.98			
Female	1922	1	3	48.0	.269	12.91			
Assemblers, for pulling-over machine:									
Male	1913	54	597	55.4	.272	15.01	100	100	100
	1914	64	708	55.3	.279	15.37	100	103	102
	1916	97	801	55.0	.291	16.02	99	107	107
	1918	102	726	52.6	.398	20.85	95	146	139
	1920	88	691	48.6	.642	31.49	88	235	210
	1922	70	593	49.0	.567	27.94	88	208	181
	1924	80	417	49.3	.554	27.31	89	204	182
Female	1920	23	77	48.5	.500	24.20			
	1922	15	58	49.0	.434	21.35			
	1924	8	33	50.0	.399	19.95			
Pullers-over, hand:									
Male	1913	52	937	55.3	.333	18.37	100	100	100
	1914	49	749	54.9	.350	19.21	99	105	105
	1916	46	543	54.8	.347	18.99	99	104	103
	1918	35	344	51.7	.478	24.62	93	144	134
	1920	25	211	47.0	.803	38.17	85	241	208
	1922	16	97	46.7	.813	38.29	84	244	208
	1924	14	50	49.3	.704	34.71	89	211	189
Pullers-over, machine:									
Male	1913	60	421	55.4	.351	19.42	100	100	100
	1914	71	443	55.5	.356	19.66	100	101	101
	1916	116	640	55.0	.377	20.70	99	107	107
	1918	124	612	52.6	.512	26.77	95	146	138
	1920	101	552	48.8	.837	41.08	88	238	212
	1922	91	554	48.9	.732	36.06	88	209	186
	1924	92	467	49.3	.737	36.34	89	210	187
Side lasters, hand:									
Male	1913	20	224	54.2	.303	16.40	100	100	100
	1914	20	237	54.0	.308	16.50	100	102	101
	1916	40	358	54.1	.325	17.57	100	107	107
	1918	43	394	51.9	.440	22.74	96	145	139
	1920	42	445	48.2	.706	35.35	89	234	216
	1922	31	362	47.8	.614	29.28	88	203	179
	1924	40	388	48.1	.690	33.19	89	228	202
Side lasters, machine:									
Male	1913	16	155	56.1	.323	18.23	100	100	100
	1914	16	167	54.3	.343	18.54	97	106	102
	1916	45	291	54.9	.339	18.53	98	105	102
	1918	57	292	52.2	.468	24.35	93	145	134
	1920	51	322	48.9	.776	37.68	87	239	207
	1922	56	338	49.3	.620	30.79	88	192	169
	1924	64	402	49.5	.617	30.54	88	191	168
Bed machine operators:									
Male	1913	65	1,220	55.2	.330	18.21	100	100	100
	1914	70	1,173	55.1	.321	17.68	100	97	97
	1916	93	1,336	55.0	.349	19.13	100	106	105
	1918	104	1,303	52.1	.500	25.98	94	152	143
	1920	93	1,252	48.7	.791	38.61	88	239	212
	1922	86	1,167	48.9	.668	32.78	89	202	180
	1924	92	1,092	49.1	.692	33.98	89	210	187
Hand-method lasting machine operators:									
Male	1913	41	449	55.3	.357	19.72	100	100	100
	1914	41	456	55.5	.348	19.25	100	97	98
	1916	66	556	55.1	.361	19.82	100	101	101
	1918	59	411	52.9	.479	25.22	96	134	128
	1920	30	213	48.9	.805	39.06	88	223	184
	1922	27	178	49.3	.735	36.38	89	206	181
	1924	12	97	48.5	.694	33.66	88	194	171

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Lasting department—Concluded									
Turn lasters, hand:									
Male.....	1913	28	524	55.0	\$0.310	\$17.00	100	100	100
	1914	31	689	54.4	.324	17.56	99	105	103
	1916	42	974	54.9	.365	20.07	100	118	118
	1918	35	752	53.8	.453	24.34	98	146	143
	1920	33	666	47.1	.889	42.49	86	284	250
	1922	30	571	48.5	.732	35.76	88	236	210
	1924	31	496	48.2	.790	38.08	88	255	224
Turn lasters, machine:									
Male.....	1920	10	102	48.6	.756	37.35			
	1922	7	31	48.1	.630	30.50			
	1924	7	26	48.5	.604	29.29			
Turn sewers:									
Male.....	1916	29	81	54.4	.442	24.00			
	1918	25	67	53.7	.500	26.75			
	1920	30	71	49.1	.940	46.26			
	1922	25	55	49.8	.801	40.14			
	1924	30	63	49.3	.819	40.38			
Tack pullers, hand and machine:									
Male.....	1920	70	425	48.5	.459	22.12			
	1922	62	348	48.6	.423	20.61			
	1924	79	331	48.9	.436	21.32			
Female.....	1920	7	21	49.0	.349	16.84			
	1922	5	23	48.9	.299	14.57			
	1924	2	7	50.0	.375	18.75			
Bottoming department									
Goodyear welters:									
Male.....	1913	70	472	55.3	.501	27.60	100	100	100
	1914	74	439	55.2	.503	27.68	100	100	100
	1916	80	467	54.9	.520	28.50	99	104	103
	1918	93	469	52.3	.620	32.29	95	124	117
	1920	80	415	48.6	.978	47.81	88	194	173
	1922	74	375	48.4	.889	43.30	88	177	157
	1924	76	336	48.7	.929	45.24	88	185	164
Welt beaters and slashers:									
Male.....	1920	70	156	48.6	.591	28.85			
	1922	63	107	48.9	.531	25.98			
	1924	61	107	48.8	.533	26.01			
Bottom fillers, hand and machine:									
Male.....	1920	69	131	48.7	.570	27.20			
	1922	69	125	48.7	.500	24.45			
	1924	66	126	49.1	.511	25.09			
Female.....	1922	1	2	48.0	.615	29.52			
	1924	3	3	50.3	.238	11.97			
Sole cementers, hand and machine:									
Male.....	1920	70	134	48.8	.428	20.85			
	1922	68	143	48.8	.408	20.11			
	1924	59	110	49.0	.432	21.17			
Female.....	1920	20	30	48.9	.339	16.33			
	1922	8	10	50.3	.343	17.41			
	1924	9	14	50.7	.373	18.91			
Sole layers, hand:									
Male.....	1920	17	43	49.4	.595	28.39			
	1922	7	9	47.1	.619	29.15			
	1924	9	26	51.6	.461	23.79			
Sole layers, machine:									
Male.....	1920	77	206	48.4	.718	34.39			
	1922	79	229	48.6	.645	31.32			
	1924	79	221	48.9	.616	30.12			
Female.....	1922	1	1	50.0	.384	19.22			

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Bottoming department—Continued.									
Rough rounders:									
Male	1913	69	265	55.2	\$0.497	\$27.37	100	100	100
	1914	73	252	55.1	.503	27.64	101	101	101
	1916	91	296	54.9	.491	26.89	99	99	98
	1918	97	285	52.4	.593	31.99	95	119	117
	1920	92	240	48.7	.938	45.68	88	187	167
	1922	75	228	48.7	.818	40.00	88	165	146
	1924	76	212	48.7	.846	41.20	88	170	151
Female	1922	1	2	50.0	.514	25.71			
Channel openers and channel closers:									
Male	1920	84	280	49.0	.491	23.75			
	1922	77	255	49.2	.443	21.76			
	1924	75	243	48.9	.480	23.47			
Female	1920	17	44	49.8	.348	17.66			
	1922	14	29	50.0	.380	19.64			
	1924	4	10	50.8	.253	12.85			
Goodyear stitchers:									
Male	1913	70	642	55.2	.399	21.96	100	100	100
	1914	74	594	55.1	.410	22.57	100	103	103
	1916	97	656	54.8	.437	23.87	99	110	109
	1918	105	680	52.4	.527	27.47	95	132	125
	1920	86	599	48.6	.822	40.07	88	205	182
	1922	77	543	48.6	.755	36.67	88	190	167
	1924	79	505	48.8	.773	37.72	88	194	172
Female	1922	1	5	50.0	.408	20.40			
McKay sewers:									
Male	1913	32	136	55.6	.319	17.70	100	100	100
	1914	39	147	55.7	.338	18.77	100	106	106
	1916	61	210	55.2	.349	19.51	99	109	110
	1918	62	203	52.9	.449	23.56	95	141	133
	1920	45	158	49.4	.712	35.53	89	223	201
	1922	39	138	50.2	.659	33.38	90	207	189
	1924	34	104	50.3	.644	32.39	90	202	183
Stitch separators:									
Male	1920	63	156	49.0	.563	27.16			
	1922	45	108	48.7	.498	24.45			
	1924	48	91	49.1	.558	27.40			
Female	1922	4	4	47.8	.408	18.89			
Levelers:									
Male	1913	75	289	55.2	.304	16.74	100	100	100
	1920	94	323	48.9	.654	32.09	89	214	192
	1922	96	318	49.0	.580	28.43	89	191	170
	1924	95	315	49.1	.597	29.31	89	196	175
Female	1922	2	3	51.7	.370	19.14			
Heelers, leather:									
Male	1913	72	291	55.3	.424	23.32	100	100	100
	1914	84	324	55.3	.402	22.18	100	95	95
	1916	130	440	55.0	.430	23.59	99	101	101
	1918	137	419	52.8	.502	26.37	95	118	113
	1920	111	382	48.7	.832	40.73	88	196	175
	1922	98	348	48.9	.759	37.15	88	179	159
	1924	98	290	49.3	.768	37.86	89	181	162
Heelers, wood:									
Male	1918	18	248	54.1	.477	25.61			
	1920	33	533	47.4	.899	42.92			
	1922	27	245	47.9	.706	33.54			
	1924	38	403	48.1	.690	33.19			
Heel trimmers or shavers:									
Male	1913	81	277	55.4	.448	24.74	100	100	100
	1914	85	277	55.2	.433	23.88	100	97	97
	1916	121	367	54.9	.449	24.55	99	100	99
	1918	128	350	52.6	.535	27.99	95	119	113
	1920	103	284	48.8	.897	44.26	88	199	179
	1922	94	246	48.9	.853	38.04	88	190	154
	1924	96	213	49.1	.793	38.94	89	177	157

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Continued

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Bottoming department—Concluded									
Heel breakers:									
Male.....	1913	75	171	55.4	\$0.313	\$17.27	100	100	100
	1914	82	173	55.3	.303	16.71	100	97	97
	1916	111	232	54.8	.319	17.50	99	102	101
	1918	113	218	52.9	.412	21.70	95	132	126
	1920	100	195	48.8	.725	35.38	88	230	205
	1922	80	161	49.2	.587	29.05	89	188	168
	1924	79	131	48.9	.588	28.75	88	188	166
Female.....	1922	1	1	52.5	.298	15.64			
	1924	3	3	49.5	.331	16.38			
Edge trimmers:									
Male.....	1913	81	838	55.4	.410	22.66	100	100	100
	1914	85	886	55.1	.400	22.01	99	98	97
	1916	129	1,081	54.9	.423	23.16	99	103	102
	1918	138	1,015	52.5	.545	28.44	95	133	126
	1920	112	828	48.7	.908	44.19	88	220	195
	1922	100	789	48.9	.764	37.36	88	186	165
	1924	102	686	49.1	.767	37.66	89	187	166
Stagers:									
Male.....	1920	79	153	49.2	.604	29.57			
	1922	68	96	49.2	.547	26.95			
	1924	26	32	48.2	.663	27.14			
Finishing department									
Buffers:									
Male.....	1913	72	358	55.3	.318	17.52	100	100	100
	1914	81	396	55.3	.309	17.05	100	97	97
	1916	129	535	54.9	.327	17.92	99	103	102
	1918	129	476	52.7	.424	22.20	95	133	127
	1920	111	449	48.8	.729	35.69	88	228	204
	1922	98	408	49.0	.630	30.95	89	198	177
	1924	99	361	49.4	.614	30.33	89	193	173
Female.....	1922	2	2	48.8	.493	23.82			
	1924	3	6	52.0	.362	18.82			
Edge setters:									
Male.....	1913	77	826	55.3	.411	22.70	100	100	100
	1914	86	872	55.2	.410	22.54	100	100	99
	1916	131	966	54.9	.414	22.62	99	101	100
	1918	138	924	52.7	.525	27.57	95	128	121
	1920	112	845	48.7	.881	42.84	88	212	189
	1922	99	779	48.9	.757	37.02	88	184	163
	1924	102	681	49.1	.756	37.12	89	184	164
Heel scourers:									
Male.....	1913	78	364	55.4	.314	17.35	100	100	100
	1914	84	372	55.3	.310	17.10	100	99	99
	1916	125	504	55.0	.346	18.94	99	110	109
	1918	129	470	52.7	.438	22.92	95	139	132
	1920	108	451	48.7	.732	35.38	88	231	204
	1922	97	421	48.9	.607	29.79	88	193	172
	1924	98	378	49.2	.621	30.55	89	198	176
Heel burnishers:									
Male.....	1913	75	280	55.5	.317	17.54	100	100	100
	1914	84	283	55.5	.322	17.86	100	102	102
	1916	127	367	55.2	.325	17.84	99	103	102
	1918	128	325	52.8	.433	22.66	95	137	129
	1920	109	304	48.7	.710	34.50	88	222	197
	1922	92	300	48.9	.584	28.75	88	184	164
	1924	91	265	50.0	.584	29.20	90	184	166
Brushers:									
Male.....	1920	86	300	48.4	.476	22.96			
	1922	80	298	48.9	.431	21.10			
	1924	80	303	49.2	.498	24.50			
Female.....	1920	17	36	49.6	.350	16.62			
	1922	10	24	50.5	.324	16.42			
	1924	12	38	50.4	.445	22.43			
Shoe cleaners:									
Male.....	1920	34	109	48.1	.488	23.10			
	1922	36	150	49.0	.431	21.15			
	1924	38	115	48.8	.416	20.30			
Female.....	1920	28	175	48.8	.337	16.09			
	1922	33	193	48.1	.325	15.79			
	1924	43	176	49.0	.340	16.66			

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, FULL-TIME EARNINGS PER WEEK, AND INDEX NUMBERS IN THE BOOT AND SHOE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT, OCCUPATION, AND SEX, 1913 TO 1924—Concluded

Department, occupation, and sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of average—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Finishing department—Concluded									
Last pullers:									
Male	1920	97	266	48.9	\$0.525	\$25.34			
	1922	88	233	49.0	.460	22.74			
	1924	91	228	49.7	.471	23.41			
Female	1922	1	1	48.0	.187	8.98			
Treers:									
Male	1913	73	1,110	55.3	.282	15.54	100	100	100
	1914	80	1,204	55.3	.279	15.38	100	99	99
	1916	124	1,652	54.9	.291	15.99	99	103	103
	1918	125	1,387	52.3	.403	21.09	95	143	136
	1920	98	1,106	48.3	.683	33.18	87	244	214
	1922	90	970	48.6	.577	28.12	88	205	181
	1924	93	948	48.8	.624	30.45	88	221	196
Female	1913	13	110	54.6	.158	8.56	100	100	100
	1914	18	107	52.1	.175	9.06	95	111	106
	1916	15	144	53.1	.188	9.93	97	119	116
	1918	31	211	53.3	.232	12.25	98	147	143
	1920	37	296	49.8	.403	20.07	91	255	234
	1922	35	228	49.3	.396	19.51	90	251	232
	1924	30	184	48.8	.431	21.03	89	273	246
Repairers (not cobblers):									
Male	1920	57	169	48.1	.510	24.37			
	1922	49	126	48.3	.462	22.30			
	1924	48	102	48.9	.511	24.99			
Female	1920	87	711	47.7	.394	18.69			
	1922	79	668	48.2	.377	18.18			
	1924	77	624	48.8	.403	19.67			
Dressers:									
Male	1920	11	16	47.6	.391	18.47			
	1922	14	18	48.6	.395	19.04			
	1924	18	39	48.8	.413	20.15			
Female	1920	78	253	48.5	.369	17.81			
	1922	73	288	49.0	.339	17.35			
	1924	62	225	49.4	.366	18.08			
Sock liners:									
Male	1920	14	30	48.8	.381	18.70			
	1922	11	21	48.5	.378	18.25			
	1924	17	37	49.7	.307	15.26			
Female	1920	95	321	48.7	.375	18.13			
	1922	90	279	49.0	.355	17.36			
	1924	84	225	49.0	.390	19.11			
Lacers:									
Male	1920	9	11	48.5	.444	20.70			
	1922	4	7	47.9	.281	13.71			
	1924	7	16	48.4	.344	16.65			
Female	1920	89	304	48.7	.325	15.64			
	1922	82	235	48.9	.304	14.81			
	1924	71	201	49.1	.368	18.07			
Packers:									
Male	1920	38	96	49.2	.472	24.02			
	1922	17	43	50.0	.477	23.75			
	1924	17	37	48.9	.458	22.40			
Female	1920	100	503	48.3	.355	17.10			
	1922	90	397	48.2	.351	16.97			
	1924	92	332	48.7	.360	17.53			
All departments									
Other employees:									
Male	1914	91	20,867	55.0	.224	12.29			
	1916	135	24,010	55.0	.243	13.35			
	1918	143	23,324	52.7	.327	17.17			
	1920	117	10,445	48.7	.518	25.22			
	1922	104	10,133	49.0	.461	22.58			
	1924	105	9,149	48.8	.479	23.38			
Female	1914	80	12,347	54.0	.168	9.05			
	1916	134	14,851	53.8	.179	9.62			
	1918	142	16,007	51.8	.226	11.67			
	1920	116	6,964	48.6	.361	17.73			
	1922	101	5,074	48.8	.334	16.39			
	1924	103	5,328	49.0	.349	17.10			

Wages and Hours of Labor in the Cotton Manufacturing Industry in the United States, 1910 to 1924

AVERAGE hourly earnings in the cotton mills of the United States are 151 per cent higher in 1924 than they were in 1913. At the same time they are approximately 23 per cent lower than in 1920. These facts are brought out in a survey of the wages and hours of labor made by the Department of Labor through the Bureau of Labor Statistics in representative cotton mills in 12 States in the early part of this year. In this survey data were obtained from the records of 114 mills and covered 77,995 employees. Of the 114 mills, 6 were in Alabama, 6 in Connecticut, 10 in Georgia, 5 in Maine, 15 in Massachusetts, 5 in New Hampshire, 4 in New York, 27 in North Carolina, 4 in Pennsylvania, 9 in Rhode Island, 20 in South Carolina, and 3 in Virginia. Schedules were taken from January pay rolls in 96 mills, February pay rolls in 17 mills, and a March pay roll in 1 mill.

From the data collected the following table has been made showing the number of employees, average full-time hours per week, average earnings per hour, and average full-time weekly earnings for each of the principal occupations and for a group of "Other employees" which includes all occupations not presented separately.

The figures for 1924 are shown in comparison with like figures, beginning with 1910, for preceding years taken from former reports of the bureau.

No data are available for 1915, 1917, 1919, 1921 and 1923.

The table also shows index numbers for full-time hours per week, earnings per hour, and full-time weekly earnings, in which the figures for 1913 are used as the base, or 100. Data for some occupations were not secured for 1913, and index numbers are not shown for these occupations. An average increase in wages since 1922 of about 11 per cent is noted. Hours have increased about one-half of 1 per cent during the same period.

WAGES AND HOURS OF LABOR IN THE COTTON MANUFACTURING INDUSTRY IN THE UNITED STATES, 1910 TO 1924

Occupation, sex, and year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—		
						Full-time hours per week	Earnings per hour	Full-time weekly earnings
Picker tenders:								
Male.....	1920.....	93	919	52.3	\$0.436	\$22.80		
	1922.....	95	777	53.1	.305	16.20		
	1924.....	114	1,048	53.6	.331	17.74		
Card tenders and strippers:								
Male.....	1920.....	96	1,156	52.9	.471	24.92		
	1922.....	96	1,096	53.5	.325	17.39		
	1924.....	114	1,367	53.6	.356	19.08		
Card grinders:								
Male.....	1920.....	92	355	52.5	.590	30.98		
	1922.....	94	332	52.9	.424	22.43		
	1924.....	111	418	52.9	.470	24.86		

WAGES AND HOURS OF LABOR IN THE COTTON MANUFACTURING INDUSTRY IN
THE UNITED STATES, 1910 TO 1924—Continued

Occupation, sex, and year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—		
						Full-time hours per week	Earnings per hour	Full-time weekly earnings
Drawing frame tenders:								
Male.....								
1910.....	56	436	59.5	\$0.096	\$5.70	103	88	90
1911.....	84	750	59.5	.097	5.73	103	89	91
1912.....	84	723	57.9	.108	6.22	100	99	99
1913.....	82	624	58.0	.109	6.31	100	100	100
1914.....	76	660	57.9	.116	6.66	100	106	106
1916.....	82	681	58.4	.126	7.32	101	116	116
1918.....	84	515	57.3	.199	11.37	99	183	180
1920.....	75	567	54.1	.427	23.10	93	392	366
1922.....	79	552	53.8	.270	14.53	93	248	230
1924.....	96	762	54.9	.295	16.20	95	271	257
Female.....								
1910.....	27	359	58.2	.090	5.20	103	78	80
1911.....	45	502	57.8	.095	5.46	102	83	84
1912.....	45	525	57.0	.110	6.23	101	96	96
1913.....	32	594	56.7	.115	6.50	100	100	100
1914.....	32	574	55.5	.118	6.51	98	103	100
1916.....	43	660	55.6	.136	7.53	98	118	116
1918.....	55	818	54.8	.209	11.40	97	182	175
1920.....	52	693	50.5	.371	18.74	89	323	288
1922.....	49	623	51.5	.276	14.21	91	240	219
1924.....	55	653	51.3	.311	15.95	90	270	245
Slubber tenders:								
Male.....								
1916.....	100	834	57.5	.192	11.21			
1918.....	103	766	56.7	.307	17.22			
1920.....	92	695	53.0	.551	29.20			
1922.....	92	689	53.5	.390	20.87			
1924.....	112	859	53.5	.421	22.52			
Female.....								
1916.....	13	60	54.2	.188	10.18			
1918.....	17	74	54.1	.257	13.89			
1920.....	11	52	49.0	.499	24.45			
1922.....	15	73	50.1	.388	19.44			
1924.....	9	37	50.8	.448	22.76			
Speeder tenders:								
Male.....								
1910.....	32	426	61.4	.131	8.08	103	90	92
1911.....	62	623	61.2	.135	8.24	102	93	94
1912.....	62	666	59.7	.142	8.47	100	98	97
1913.....	61	745	59.8	.145	8.72	100	100	100
1914.....	58	799	59.3	.153	9.04	99	106	104
1916.....	95	1,739	58.5	.174	10.13	98	120	116
1918.....	98	1,478	58.2	.265	15.28	97	183	175
1920.....	87	1,506	54.2	.533	28.89	91	368	331
1922.....	90	1,745	54.1	.358	19.37	90	247	222
1924.....	109	2,177	54.3	.394	21.39	91	272	245
Female.....								
1910.....	57	1,175	57.8	.133	7.68	102	87	89
1911.....	82	1,753	57.9	.136	7.86	102	89	91
1912.....	82	1,784	56.6	.149	8.42	100	97	98
1913.....	79	1,946	56.5	.153	8.61	100	100	100
1914.....	79	2,001	55.8	.155	8.61	99	101	101
1916.....	95	2,986	55.6	.188	10.38	98	123	121
1918.....	100	3,214	55.0	.277	15.10	97	181	175
1920.....	82	2,476	50.2	.486	24.40	89	318	283
1922.....	89	2,372	51.0	.369	18.82	90	241	219
1924.....	105	2,703	51.2	.411	21.04	91	269	244
Spinners, mule:								
Male.....								
1910.....	14	222	57.0	.219	12.50	103	78	80
1911.....	16	288	56.8	.255	14.44	102	91	93
1912.....	16	266	55.7	.279	15.48	100	99	99
1913.....	16	258	55.6	.281	15.58	100	100	100
1914.....	14	245	54.9	.291	15.95	99	104	102
1916.....	17	334	54.7	.345	18.85	98	123	121
1918.....	17	303	54.3	.487	26.40	98	173	169
1920.....	14	253	48.9	.826	40.39	88	294	259
1922.....	11	220	50.0	.638	31.90	90	227	205
1924.....	8	186	49.1	.746	36.63	88	265	235
Spinners, frame:								
Male.....								
1910.....	36	261	57.2	.120	6.83	101	84	85
1911.....	46	700	57.2	.126	7.18	101	88	89
1912.....	49	564	56.7	.144	8.14	100	101	101
1913.....	49	530	56.9	.143	8.07	100	100	100
1914.....	38	483	54.7	.150	8.19	96	105	101
1916.....	41	489	56.6	.164	9.21	99	115	114
1918.....	53	383	54.3	.248	13.48	95	173	167
1920.....	34	345	50.7	.475	24.08	89	332	298
1922.....	49	547	53.4	.292	13.59	94	204	193
1924.....	64	906	53.2	.369	19.63	93	258	243

WAGES AND HOURS OF LABOR IN THE COTTON MANUFACTURING INDUSTRY IN
THE UNITED STATES, 1910 TO 1924—Continued

Occupation, sex, and year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—			
						Full-time hours per week	Earnings per hour	Full-time weekly earnings	
Spinners, frame—Concluded									
Female.....	1910.....	59	3,704	59.0	\$0.108	\$6.33	102	84	86
	1911.....	88	5,981	59.1	.111	6.51	102	87	88
	1912.....	88	6,364	58.0	.124	6.98	100	97	99
	1913.....	90	6,762	57.8	.128	7.33	100	100	100
	1914.....	90	6,906	56.9	.132	7.45	98	103	102
	1916.....	104	7,706	57.2	.149	8.24	99	116	112
	1918.....	105	7,752	56.1	.233	12.89	97	182	176
	1920.....	95	6,330	51.8	.427	22.12	90	334	302
	1922.....	96	6,634	52.6	.301	15.83	91	235	216
	1924.....	114	8,314	53.1	.319	16.94	92	249	231
Doffers:									
Male.....	1916.....	99	3,206	57.9	.139	8.15			
	1918.....	102	2,857	56.1	.231	12.87			
	1920.....	89	2,717	53.1	.453	24.05			
	1922.....	91	2,716	53.5	.302	16.16			
	1924.....	109	3,133	54.0	.334	18.04			
Female.....	1916.....	19	537	55.0	.162	8.92			
	1918.....	26	703	52.6	.255	13.46			
	1920.....	21	543	49.8	.389	19.37			
	1922.....	28	460	50.9	.324	16.49			
	1924.....	27	478	50.9	.380	19.34			
Spooler tenders:									
Male.....	1924.....	8	37	55.0	.192	10.56			
Female.....	1916.....	104	3,662	57.2	.137	7.73			
	1918.....	105	3,759	56.2	.207	11.46			
	1920.....	95	3,010	52.2	.386	20.15			
	1922.....	95	3,091	52.7	.264	13.91			
	1924.....	113	3,646	53.3	.285	15.19			
Creelers or tiers-in:									
Male.....	1920.....	9	27	54.8	.393	21.54			
	1922.....	13	30	55.6	.304	16.90			
	1924.....	21	59	55.5	.298	16.54			
Female.....	1920.....	62	428	52.6	.347	18.25			
	1922.....	74	417	52.6	.244	12.83			
	1924.....	84	543	53.0	.272	14.42			
Warper tenders:									
Male.....	1916.....	25	75	59.4	.176	10.41			
	1918.....	30	82	59.6	.243	14.48			
	1920.....	27	85	55.8	.525	29.30			
	1922.....	35	101	55.9	.353	19.73			
	1924.....	41	133	54.7	.388	21.22			
Female.....	1916.....	78	562	56.0	.182	10.15			
	1918.....	82	595	55.4	.259	14.20			
	1920.....	77	506	50.9	.460	23.41			
	1922.....	77	502	51.8	.348	18.03			
	1924.....	93	544	52.2	.391	20.41			
Beamer tenders:									
Male.....	1916.....	22	328	56.0	.271	15.01			
	1918.....	24	280	56.3	.404	22.63			
	1920.....	21	246	50.9	.711	36.19			
	1922.....	26	313	50.9	.538	27.38			
	1924.....	27	331	51.7	.621	32.11			
Female.....	1916.....	5	91	54.8	.224	12.28			
	1918.....	7	113	54.1	.315	17.06			
	1920.....	5	100	48.3	.578	27.92			
	1922.....	5	85	51.5	.377	19.42			
	1924.....	7	108	51.9	.448	23.25			
Slasher tenders:									
Male.....	1910.....	57	276	58.4	.178	10.33	102	84	85
	1911.....	85	455	58.5	.194	11.26	102	92	93
	1912.....	85	449	57.4	.216	12.34	100	102	102
	1913.....	87	485	57.5	.212	12.09	100	100	100
	1914.....	87	528	56.8	.211	11.81	99	100	98
	1916.....	96	581	56.8	.241	13.48	99	114	111
	1918.....	99	608	56.5	.340	18.73	98	160	155
	1920.....	89	504	52.1	.579	30.17	91	273	250
	1922.....	92	547	52.7	.426	22.45	92	201	186
	1924.....	114	636	53.0	.467	24.75	92	220	205
Drawers-in:									
Male.....	1924.....	18	61	55.5	.339	18.81			

WAGES AND HOURS OF LABOR IN THE COTTON MANUFACTURING INDUSTRY IN THE UNITED STATES, 1910 TO 1924—Concluded

Occupation, sex, and year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—		
						Full-time hours per week	Earnings per hour	Full-time weekly earnings
Drawers-in—Concluded								
Female.....								
1916.....	86	926	56.0	\$0.191	\$10.47			
1918.....	91	834	55.3	.273	15.00			
1920.....	80	632	50.7	.485	24.59			
1922.....	77	664	51.8	.352	18.23			
1924.....	91	726	51.8	.383	19.84			
Warp-tying machine tenders:								
Male.....								
1920.....	72	154	52.6	.500	31.03			
1922.....	79	191	52.9	.425	22.48			
1924.....	91	221	53.5	.452	24.18			
Loom fixers:								
Male.....								
1910.....	59	1,267	58.7	.200	11.64	102	88	90
1911.....	88	2,200	58.6	.203	11.80	102	89	91
1912.....	88	2,290	57.7	.224	12.84	100	99	99
1913.....	90	2,370	57.6	.227	12.96	100	100	100
1914.....	90	2,491	56.8	.233	13.09	99	103	101
1916.....	102	2,776	56.8	.270	15.17	99	119	117
1918.....	103	2,709	56.4	.391	21.79	98	172	168
1920.....	93	2,366	52.2	.685	35.76	91	302	276
1922.....	95	2,456	52.9	.500	26.45	92	220	204
1924.....	114	2,962	52.9	.553	29.25	92	244	226
Weavers:								
Male.....								
1910.....	58	5,334	58.8	.151	8.83	102	89	91
1911.....	88	8,855	58.6	.156	9.08	102	92	93
1912.....	88	9,775	57.5	.169	9.67	100	99	99
1913.....	89	9,485	57.6	.170	9.73	100	100	100
1914.....	89	9,755	56.8	.176	9.93	99	104	102
1916.....	100	10,279	56.7	.205	11.54	98	121	119
1918.....	103	8,301	56.2	.301	16.78	98	177	172
1920.....	93	6,077	51.8	.573	29.68	90	337	305
1922.....	95	7,410	52.6	.389	20.44	91	229	210
1924.....	114	9,024	52.8	.449	23.71	92	264	244
Female.....								
1910.....	59	6,334	57.8	.147	8.47	102	90	91
1911.....	88	10,792	57.9	.148	8.54	102	90	92
1912.....	88	10,998	56.9	.163	9.26	100	99	100
1913.....	89	11,236	56.7	.164	9.30	100	100	100
1914.....	89	11,188	55.8	.167	9.30	98	102	100
1916.....	101	11,546	55.7	.201	11.12	98	123	120
1918.....	103	10,993	55.4	.285	15.62	98	174	168
1920.....	92	7,681	50.3	.528	26.56	89	322	286
1922.....	95	7,644	51.6	.380	19.59	91	232	211
1924.....	114	8,494	51.8	.429	22.22	91	262	239
Trimmers or inspectors:								
Male.....								
1920.....	22	76	53.4	.426	22.75			
1922.....	28	78	54.3	.251	13.63			
1924.....	36	158	55.3	.304	16.81			
Female.....								
1910.....	46	406	53.3	.090	5.78	101	89	91
1911.....	75	712	53.7	.103	6.02	101	93	94
1912.....	77	708	57.7	.112	6.41	100	101	100
1913.....	77	687	57.9	.111	6.39	100	100	100
1914.....	74	729	57.2	.113	6.41	99	102	100
1916.....	83	971	56.7	.129	7.25	98	116	113
1918.....	87	1,175	55.6	.186	10.29	96	168	161
1920.....	76	1,045	51.6	.333	17.18	89	300	269
1922.....	78	1,056	52.5	.246	12.92	91	222	202
1924.....	92	1,602	52.7	.268	14.12	91	241	221
Other employees:								
Male.....								
1914.....	88	29,861	57.5	.151	8.59			
1916.....	105	27,395	57.7	.176	10.05			
1918.....	106	25,740	56.8	.270	15.18			
1920.....	96	13,336	52.6	.419	22.04			
1922.....	97	14,991	53.9	.289	15.58			
1924.....	114	20,578	53.7	.347	18.63			
Female.....								
1914.....	88	12,143	56.3	.123	6.89			
1916.....	101	5,913	55.7	.140	7.82			
1918.....	102	6,359	54.4	.234	12.06			
1920.....	94	4,685	51.1	.322	16.45			
1922.....	96	4,421	51.8	.244	12.64			
1924.....	110	5,092	51.9	.292	15.15			
The industry.....								
1910.....	50	20,725	58.9	.130	7.62	102	88	90
1911.....	88	34,397	58.8	.134	7.81	102	90	92
1912.....	88	35,941	57.8	.147	8.41	100	99	99
1913.....	88	36,498	57.7	.148	8.52	100	100	100
1914.....	90	78,582	56.8	.153	8.63	98	103	101
1916.....	106	85,233	56.9	.179	10.08	99	120	118
1918.....	106	81,121	56.0	.267	14.95	97	179	176
1920.....	96	59,548	51.8	.480	24.86	90	324	292
1922.....	97	62,833	52.8	.330	17.42	91	222	206
1924.....	114	77,996	53.0	.372	19.72	92	251	231

Wages and Hours of Labor in the Sheet-Mill Department of the Iron and Steel Industry, 1924

FOR a number of years a gradual reduction has taken place in the working time of employees in the iron and steel industry although the movement to grant shorter hours per day or per week had not, prior to the summer of 1923, received concerted action. While the 8-hour turn had been adopted as the standard working time for all employees in some entire plants and in certain departments or divisions in other plants, the 12-hour shift still prevailed to a large extent. Some employees also worked 7 days per week.

The blast-furnace department particularly, while showing a gradual decrease from former years in the hours of labor of employees as a whole, was still largely on a 12-hour basis. In sheet and tin-plate mills, however, the 8-hour turn had long ago been found to be more profitable for both employer and employee on account of the speeding up of production made possible by the shorter working hours, and except for a small per cent of the employees, mostly laborers, these departments have operated on a three-shift basis for many years. The long turn in puddling mills also had previously been eliminated to a large extent. In other departments the 12-hour turn had been largely retained.

In response to a request of the President of the United States in the early part of 1922 a general movement was started in the industry to eliminate the long turn and, so far as possible, the 7-day week. Some time was necessary in order to arrange for such a radical step and it was not until the summer of 1923 that the change was actually begun.

In February, 1924, the United States Department of Labor, through the Bureau of Labor Statistics, began a study into wages and hours of labor in representative mills in 10 departments of the iron and steel industry of the United States. The bureau has collected data concerning wages and hours of labor of employees in this industry at periodic intervals for a number of years, and while the continuity of the comparisons are of extreme importance the working-time of employees in 1924 is of unusual interest following the general reduction in hours of labor. The bureau could not undertake a complete census, but data were obtained from a sufficient number of representative plants to illustrate conditions in the industry.

Although the inquiry has not yet been completed for many of the departments in the industry, the summary figures for the sheet-mill department are herewith presented. In the succeeding numbers of the MONTHLY LABOR REVIEW will be presented summary figures for the other departments as the data therefor become available.

As shown by a combination of the data for the principal productive occupations, there was practically no change in the customary full-time hours per week of employees in the sheet-mill branch of the industry in 1924 as compared with former years, for, as stated above, this department has long been on an 8-hour basis and hours are subject to only slight changes from year to year.

Earnings per hour, however, have increased 15 per cent in 1924 as compared with 1922, although they are still 26 per cent below

the high average for 1920. As compared with 1913 an increase of 70 per cent is noted in the 1924 figure, and earnings per hour have more than doubled since 1910.

Full-time weekly earnings have followed very closely the course of earnings per hour, as changes in full-time hours were very slight.

Index numbers showing relative changes, as compared with 1913, in customary full-time hours per week, hourly earnings, and full-time weekly earnings in the principal productive occupations of the sheet mill department combined, are shown below:

TABLE 1.—INDEX NUMBERS OF WAGES AND HOURS IN SHEET MILLS, PRINCIPAL PRODUCTIVE OCCUPATIONS COMBINED

[1913=100]

Year	Index numbers of average—		
	Customary full-time hours per week	Earnings per hour	Full-time weekly earnings
1910.....	102	84	85
1911.....	102	91	92
1912.....	101	93	94
1913.....	100	100	100
1914.....	100	101	101
1915.....	101	92	92
1917.....	104	178	183
1919.....	99	193	195
1920.....	100	229	240
1922.....	101	147	156
1924.....	100	170	179

Table 2 shows the most significant facts concerning average hours and average earnings for each of the principal productive occupations in sheet mills for the period 1910 to 1924. Data for 1924 were collected from the same 14 plants as were visited in 1922, which constitute about one-third of the plants in the United States. In 1917 only 8 plants were covered. In certain years no data were collected. The index numbers presented in the above table were computed from a combination of the data for the occupations shown below.

The full-time hours per week for the combined principal productive occupations show very little change when 1924 is compared with other years, although when considered separately some variations are noted, as not all of the occupations are on an 8-hour basis. The greatest change has taken place in the occupation of feeders. In 1920 feeders averaged 56.8 hours per week full time, which increased to 61.4 hours in 1922 and dropped to 53.1 hours in 1924.

Also the increase in hourly earnings in 1924 over 1922 is 15 per cent for the principal productive occupations as a whole, while in the individual occupations increases ranging from 9 per cent for sheet heaters (level-handed) and picklers to 26 per cent for rollers (level-handed) are shown. The earnings of laborers increased 18 per cent over 1922, although they are still 22 per cent less than in 1920.

Index numbers for customary full-time hours per week, earnings per hour, and full-time weekly earnings for each occupation for which data are available back to 1913, the base year, are also included in the table. In addition a percentage distribution is made of employees in the several occupations according to their customary full-time hours per week.

TABLE 2.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1924

[1913=100]

Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week	Earnings per hour	Full-time weekly earnings	Over 40 and under 44	Over 44 and under 48	48	Over 48 and under 60	60	Over 60 and under 72	Over 72 and over
Pair heaters															
1910.....	0	210	42.7	\$0.466	\$19.89	100	86	86	(3)	(3)	2 100				
1911.....	9	255	42.7	.502	21.42	100	92	92	(3)	(4)	2 100				
1912.....	9	249	42.7	.517	22.06	100	95	95	(3)	(5)	2 100				
1913.....	13	336	42.8	.543	23.23	100	100	100	(3)	(5)	2 100				
1914.....	15	399	42.8	.540	23.10	100	99	99	(3)	(5)	2 100				
1915.....	15	354	42.8	.518	22.17	100	95	95	(3)	(5)	2 100				
1917.....	8	276	43.7	1.038	45.48	102	191	195	(3)	(5)	2 100				
1919.....	11	382	43.4	1.046	45.40	101	193	195	(3)	(5)	2 100				
1920.....	13	521	43.4	1.386	60.13	101	255	259	(3)	(5)	2 100				
1922.....	14	576	43.3	.880	37.84	101	162	163	(3)	(4)	2 100				
1924.....	14	536	43.4	1.027	44.50	101	189	192	72	28					

Rollers

1910.....	9	215	42.7	\$1.242	\$52.98	100	84	84	(2)	(2)	2 100	-----	-----	-----	-----
1911.....	9	259	42.7	1.380	58.89	100	93	93	(2)	(2)	2 100	-----	-----	-----	-----
1912.....	9	252	42.7	1.416	60.41	100	96	96	(2)	(2)	2 100	-----	-----	-----	-----
1913.....	13	335	42.8	1.476	63.21	100	100	100	(2)	(2)	2 100	-----	-----	-----	-----
1914.....	15	394	42.8	1.431	61.20	100	97	97	(2)	(2)	2 100	-----	-----	-----	-----
1915.....	15	348	42.9	1.280	54.80	100	87	87	(2)	(2)	2 100	-----	-----	-----	-----
1917.....	8	276	43.7	2.591	113.47	102	175	180	(2)	(2)	2 100	-----	-----	-----	-----
1919.....	11	342	43.5	2.536	110.32	102	172	175	(2)	(2)	2 100	-----	-----	-----	-----
1920.....	13	464	43.4	2.976	129.10	101	202	204	(2)	(2)	2 100	-----	-----	-----	-----
1922.....	14	501	43.8	1.894	82.84	102	128	131	(2)	(2)	2 100	-----	-----	-----	-----
1924.....	14	478	43.4	2.148	93.35	101	146	148	73	27	-----	-----	-----	-----	-----

Rollers, level-handed

1920.....	5	44	42.7	\$1.516	\$64.73	-----	-----	-----	(2)	(2)	2 100	-----	-----	-----	-----
1922.....	3	39	44.5	1.071	47.66	-----	-----	-----	(2)	(2)	2 100	-----	-----	-----	-----
1924.....	7	114	42.9	1.345	57.69	-----	-----	-----	91	9	-----	-----	-----	-----	-----

Roller's helpers or finishers

1912.....	6	115	42.7	\$0.474	\$20.21	100	94	94	(2)	(2)	2 100	-----	-----	-----	-----
1913.....	8	171	42.7	.503	21.48	100	100	100	(2)	(2)	2 100	-----	-----	-----	-----
1914.....	10	264	42.9	.555	23.77	100	110	111	(2)	(2)	2 100	-----	-----	-----	-----
1915.....	10	233	42.9	.461	19.77	100	92	92	(2)	(2)	2 100	-----	-----	-----	-----
1919.....	10	271	43.0	1.010	43.43	101	201	202	(2)	(2)	2 100	-----	-----	-----	-----
1920.....	11	437	42.8	1.092	46.80	100	217	218	(2)	(2)	2 100	-----	-----	-----	-----
1922.....	11	487	42.9	.721	30.90	100	143	144	(2)	(2)	2 100	-----	-----	-----	-----
1924.....	11	437	43.0	.865	37.28	101	172	174	83	17	-----	-----	-----	-----	-----

Roughers

1910.....	9	215	42.7	\$0.558	\$23.82	100	87	87	(2)	(2)	2 100	-----	-----	-----	-----
1911.....	9	255	42.7	.603	25.71	100	94	94	(2)	(2)	2 100	-----	-----	-----	-----
1912.....	9	252	42.7	.616	26.29	100	96	96	(2)	(2)	2 100	-----	-----	-----	-----
1913.....	13	336	42.8	.642	27.49	100	100	100	(2)	(2)	2 100	-----	-----	-----	-----
1914.....	15	399	42.8	.648	27.73	100	101	101	(2)	(2)	2 100	-----	-----	-----	-----
1915.....	15	353	42.8	.619	26.51	100	96	96	(2)	(2)	2 100	-----	-----	-----	-----
1917.....	8	276	43.7	1.285	56.27	102	200	205	(2)	(2)	2 100	-----	-----	-----	-----
1919.....	11	367	43.5	1.289	56.07	102	201	204	(2)	(2)	2 100	-----	-----	-----	-----
1920.....	13	528	43.4	1.584	68.69	101	247	250	(2)	(2)	2 100	-----	-----	-----	-----
1922.....	14	590	44.3	.994	43.80	104	155	159	(2)	(2)	2 100	-----	-----	-----	-----
1924.....	14	533	43.4	1.150	49.94	101	179	182	74	26	-----	-----	-----	-----	-----

¹ In earlier reports classified under 3 headings: "72," "Over 72 and under 84," and "84." For this distribution see Bul. No. 353. No employees worked over 72 hours per week in 1924 except 5 picklers.

² In earlier reports tabulated only as "48 and under."

TABLE 2.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1924—Continued

Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week	Earnings per hour	Full-time weekly earnings	Over 40 and under 44	Over 44 and under 48	48	Over 48 and under 60	60	Over 60 and under 72	72 and over

Catchers

1910.....	9	215	42.7	\$0.544	\$23.19	100	87	86	(2)	(2)	2 100				
1911.....	9	258	42.7	.587	25.03	100	93	93	(2)	(2)	2 100				
1912.....	9	252	42.7	.603	25.71	100	96	96	(2)	(2)	2 100				
1913.....	13	336	42.8	.629	26.92	100	100	100	(2)	(2)	2 100				
1914.....	15	399	42.8	.636	27.23	100	101	101	(2)	(2)	2 100				
1915.....	15	350	42.8	.595	25.49	100	95	95	(2)	(2)	2 100				
1917.....	8	276	43.7	1.256	54.92	102	200	204	(2)	(2)	2 100				
1919.....	11	407	43.6	1.199	52.28	102	191	194	(2)	(2)	2 100				
1920.....	13	552	43.4	1.532	66.43	101	244	247	(2)	(2)	2 100				
1922.....	14	589	43.3	.962	41.57	101	153	154	(2)	(2)	2 100				
1924.....	14	570	43.4	1.099	47.70	101	175	177	72	28					

Matchers

1910.....	9	210	42.7	\$0.387	\$16.53	100	86	86	(2)	(2)	2 100				
1911.....	9	255	42.7	.418	17.83	100	93	93	(2)	(2)	2 100				
1912.....	9	249	42.7	.429	18.30	100	96	96	(2)	(2)	2 100				
1913.....	13	336	42.8	.448	19.16	100	100	100	(2)	(2)	2 100				
1914.....	15	399	42.8	.484	20.70	100	108	108	(2)	(2)	2 100				
1915.....	15	354	42.8	.475	20.34	100	106	106	(2)	(2)	2 100				
1917.....	8	276	43.7	.946	41.39	102	211	216	(2)	(2)	2 100				
1919.....	11	398	43.5	.981	42.67	102	219	223	(2)	(2)	2 100				
1920.....	13	642	43.4	1.225	53.12	101	273	277	(2)	(2)	2 100				
1922.....	14	743	43.3	.791	34.06	101	177	179	(2)	(2)	2 100				
1924.....	14	639	43.4	.932	40.42	101	208	211	69	31					

Doublers

1910.....	9	210	42.7	\$0.372	\$15.86	100	87	86	(2)	(2)	2 100				
1911.....	9	252	42.7	.401	17.10	100	93	93	(2)	(2)	2 100				
1912.....	9	246	42.7	.412	17.58	100	96	96	(2)	(2)	2 100				
1913.....	13	336	42.8	.429	18.34	100	100	100	(2)	(2)	2 100				
1914.....	15	399	42.8	.462	19.75	100	108	108	(2)	(2)	2 100				
1915.....	15	354	42.8	.453	19.42	100	106	106	(2)	(2)	2 100				
1917.....	8	276	43.7	.906	39.57	102	211	216	(2)	(2)	2 100				
1919.....	11	437	43.4	.921	39.97	101	215	218	(2)	(2)	2 100				
1920.....	13	658	43.4	1.206	52.32	101	281	285	(2)	(2)	2 100				
1922.....	14	731	43.3	.775	33.42	101	181	182	(2)	(2)	2 100				
1924.....	14	661	43.4	.909	39.42	101	212	215	71	29					

Sheet Heaters

1910.....	9	215	42.7	\$0.883	\$37.68	100	89	89	(2)	(2)	2 100				
1911.....	9	259	42.7	.911	38.88	100	92	91	(2)	(2)	2 100				
1912.....	9	253	42.7	.949	40.51	100	96	95	(2)	(2)	2 100				
1913.....	12	307	42.8	.993	42.50	100	100	100	(2)	(2)	2 100				
1914.....	14	384	42.8	.966	41.34	100	97	97	(2)	(2)	2 100				
1915.....	14	324	42.9	.868	37.19	100	87	88	(2)	(2)	2 100				
1917.....	8	276	43.7	1.879	82.36	102	189	194	(2)	(2)	2 100				
1919.....	11	332	43.5	1.849	80.43	102	186	189	(2)	(2)	2 100				
1920.....	13	424	43.4	2.151	93.29	101	217	220	(2)	(2)	2 100				
1922.....	14	499	43.3	1.380	59.74	101	139	141	(2)	(2)	2 100				
1924.....	14	470	43.4	1.559	67.68	101	157	159	73	27					

* In earlier reports tabulated only as "48 and under."

TABLE 2.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1924—Continued

Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week	Earnings per hour	Full-time weekly earnings	Over 40 and under 44	Over 44 and under 48	48	Over 48 and under 60	60	Over 60 and under 72	72 and over
1913	2	14	42.7	\$0.707	\$30.17	100	100	100	(1)	(1)	2 100				
1914	2	56	42.7	.762	32.65	100	108	108	(1)	(1)	2 100				
1915	2	34	42.7	.686	29.27	100	97	97	(1)	(1)	2 100				
1919	3	15	42.7	1.316	56.19	100	186	186	(1)	(1)	2 100				
1920	8	94	43.0	1.661	71.45	101	235	237	(1)	(1)	2 100				
1922	7	90	43.3	.995	41.33	101	141	137	(1)	(1)	2 100				
1924	7	115	42.9	1.088	46.29	100	154	153	93	7					

Sheet heaters, level-handed

1913	2	14	42.7	\$0.707	\$30.17	100	100	100	(1)	(1)	2 100				
1914	2	56	42.7	.762	32.65	100	108	108	(1)	(1)	2 100				
1915	2	34	42.7	.686	29.27	100	97	97	(1)	(1)	2 100				
1919	3	15	42.7	1.316	56.19	100	186	186	(1)	(1)	2 100				
1920	8	94	43.0	1.661	71.45	101	235	237	(1)	(1)	2 100				
1922	7	90	43.3	.995	41.33	101	141	137	(1)	(1)	2 100				
1924	7	115	42.9	1.088	46.29	100	154	153	93	7					

Sheet heaters' helpers

1910	8	174	42.7	\$0.377	\$16.07	100	78	78	(1)	(1)	2 100				
1911	8	215	42.7	.436	18.59	100	90	90	(1)	(1)	2 100				
1912	8	208	42.7	.439	18.71	100	91	90	(1)	(1)	2 100				
1913	10	230	42.9	.483	20.70	100	100	100	(1)	(1)	2 100				
1914	13	309	42.8	.485	20.73	100	100	100	(1)	(1)	2 100				
1915	13	275	42.9	.458	19.60	100	95	95	(1)	(1)	2 100				
1917	6	216	43.2	.859	37.21	101	177	180	(1)	(1)	2 100				
1919	11	286	43.1	.926	39.91	100	192	193	(1)	(1)	2 100				
1920	12	367	42.7	1.140	48.68	100	236	235	(1)	(1)	2 100				
1922	13	454	42.8	.727	31.13	100	151	150	(1)	(1)	2 100				
1924	13	408	42.9	.804	38.51	100	185	186	90	10					

Shearmen

1910	7	85	46.0	\$0.689	\$30.79	107	85	88	(1)	(1)	2 86			14	
1911	7	104	44.9	.722	32.86	105	89	94	(1)	(1)	2 90			10	
1912	7	105	44.9	.768	34.67	105	94	99	(1)	(1)	2 90			10	
1913	8	114	42.9	.814	34.90	100	100	100	(1)	(1)	2 100				
1914	10	136	42.9	.860	36.84	100	106	106	(1)	(1)	2 100				
1915	10	115	43.0	.827	35.48	100	102	102	(1)	(1)	2 100				
1917	7	149	43.5	1.399	60.90	101	172	175	(1)	(1)	2 100				
1919	11	221	43.3	1.463	63.35	101	180	182	(1)	(1)	2 100				
1920	8	122	43.5	1.891	82.22	101	232	236	(1)	(1)	2 100				
1922	12	190	43.3	1.173	50.82	101	144	146	(1)	(1)	2 100				
1924	10	150	43.7	1.289	56.26	102	158	161	68	26	6				

Shearmen's helpers

1910	6	62	46.4	\$0.261	\$11.99	108	104	111	(1)	(1)	2 84			16	
1911	6	83	44.9	.308	13.59	105	123	126	(1)	(1)	2 90			10	
1912	6	77	45.1	.290	12.88	105	116	120	(1)	(1)	2 90			10	
1913	7	111	42.9	.251	10.77	100	100	100	(1)	(1)	2 100				
1914	9	128	42.9	.282	12.09	100	112	112	(1)	(1)	2 100				
1915	9	146	43.8	.242	10.59	102	96	98	(1)	(1)	2 95	2		3	
1917	6	120	43.2	.533	23.06	101	220	214	(1)	(1)	2 100				
1919	11	196	43.7	.682	29.80	102	272	277	(1)	(1)	2 98			2	
1920	7	155	43.7	.983	42.91	102	392	398	(1)	(1)	2 100				
1922	12	265	43.4	.642	27.69	101	256	257	(1)	(1)	2 100				
1924	8	203	43.8	.736	32.11	102	293	298	65	30	5				

¹ In earlier reports tabulated only as "48 and under."

TABLE 2.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1924—Concluded

Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers of average—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week	Earnings per hour	Full-time weekly earnings	Over 40 and under 44	Over 44 and under 48	48	Over 48 and under 60	60	Over 60 and under 72	72 and over
Openers															
1910.....	7	138	46.0	\$0.274	\$12.57	101	98	100	(²)	(²)	² 86	---	---	14	---
1911.....	7	167	45.2	.275	12.35	100	99	98	(²)	(²)	² 89	---	---	11	---
1912.....	7	180	45.8	.289	13.04	101	104	104	(²)	(²)	² 87	---	---	13	---
1913.....	6	168	45.4	.279	12.56	100	100	100	(²)	(²)	² 88	---	---	12	---
1914.....	9	200	42.8	.282	12.06	94	101	96	(²)	(²)	² 100	---	---	---	---
1915.....	9	180	43.6	.273	11.93	96	98	95	(²)	(²)	² 96	2	---	2	---
1917.....	6	175	43.3	.662	28.70	95	237	229	(²)	(²)	² 100	---	---	---	---
1919.....	10	266	43.6	.656	28.60	96	235	228	(²)	(²)	² 99	---	---	1	---
1920.....	6	198	44.0	1.188	52.13	97	426	415	(²)	(²)	² 100	---	---	---	---
1922.....	11	415	43.5	.731	31.23	96	262	249	(²)	(²)	² 100	---	---	---	---
1924.....	9	284	43.5	.806	34.99	96	289	279	72	28	---	---	---	---	---
Picklers															
1910.....	4	50	70.8	\$0.181	\$12.75	104	84	88	(²)	(²)	(²)	---	10	---	90
1911.....	5	58	71.2	.177	12.54	105	82	87	(²)	(²)	(²)	---	9	16	76
1912.....	5	39	71.7	.186	13.23	105	86	91	(²)	(²)	(²)	---	13	15	71
1913.....	8	71	68.1	.216	14.49	100	100	100	(²)	(²)	² 11	---	7	8	73
1914.....	9	121	69.6	.211	14.55	102	98	100	(²)	(²)	² 7	---	4	8	81
1915.....	9	126	69.8	.209	14.44	102	97	100	(²)	(²)	² 6	---	3	6	84
1919.....	7	67	68.3	.600	40.98	100	278	283	(²)	(²)	(²)	6	24	---	70
1920.....	7	65	51.5	.792	41.13	76	367	284	(²)	(²)	² 77	---	5	17	2
1922.....	11	106	65.9	.508	33.51	97	235	231	(²)	(²)	² 8	8	7	42	36
1924.....	12	150	63.6	.555	35.48	93	257	245	5	---	2	13	31	21	29
Feeders															
1920.....	5	41	56.8	\$0.704	\$39.39	---	---	---	(²)	(²)	² 41	---	20	39	---
1922.....	8	119	61.4	.500	30.66	---	---	---	(²)	(²)	² 32	7	10	30	21
1924.....	8	101	53.1	.578	30.72	---	---	---	29	22	9	9	2	3	27
Laborers															
1910.....	9	347	63.1	\$0.164	\$10.35	97	86	84	(²)	(²)	(²)	4	54	13	20
1911.....	9	361	63.6	.166	10.54	98	87	86	(²)	(²)	(²)	5	53	25	18
1912.....	9	354	63.5	.169	10.72	98	89	87	(²)	(²)	(²)	4	54	26	16
1913.....	13	351	64.9	.190	12.28	100	100	100	(²)	(²)	(²)	17	37	13	33
1914.....	15	378	65.9	.188	12.37	102	99	101	(²)	(²)	(²)	10	26	32	31
1915.....	15	394	65.0	.188	12.21	100	99	99	(²)	(²)	(²)	10	32	30	27
1917.....	8	656	61.8	.331	20.46	95	174	167	(²)	(²)	(²)	---	73	26	2
1919.....	9	270	64.5	.462	29.80	99	243	243	(²)	(²)	(²)	8	51	13	28
1920.....	11	806	59.5	.536	32.01	92	282	261	(²)	(²)	² 32	10	20	11	27
1922.....	13	808	65.2	.356	23.06	100	187	188	(²)	(²)	(²)	29	31	8	32
1924.....	13	757	64.5	.420	27.15	100	221	221	---	---	3	20	34	13	30

² In earlier reports tabulated only as "48 and under."

Average Daily Wage Rates of Railroad Employees on Class I Carriers, July, 1923

THE following table is taken from Wage Series Report No. 4 (February, 1924), of the United States Railroad Labor Board. It shows for Class I roads the number of employees in July, 1923; the rates as of December, 1917 (in part), and January, 1920;

and the rates, under awards of the United States Railroad Labor Board, as of May, 1920; July, 1921; July, 1922; and July, 1923.

In many instances, especially since July, 1922, carriers and their employees have mutually settled their wage grievances, and hence such settlements have not come under the Board's awards. Further, some roads have paid wages above the minimum set by the Board's awards. The last column of the table shows the average rates of all Class I roads including both Board award rates and mutual agreement rates.

AVERAGE DAILY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS I CARRIERS

Class of employees	Number of employees, July, 1923	Average daily rates						Actual average daily rates in effect July, 1923
		December, 1917	U. S. Railroad Administration, January, 1920	U. S. Railroad Labor Board				
				May 1, 1920	July, 1921	July, 1922	July, 1923	
Group I.—Supervisory forces								
Yardmasters	3,589		\$8.14	\$9.34	\$9.11	\$9.11	\$8.95	\$8.95
Yardmasters' assistants	2,395		7.05	8.25	8.07	8.07	8.00	8.00
Train dispatchers	3,916		8.35	9.39	8.90	8.90	9.08	9.08
Train directors	116		6.15	6.95	6.55	6.55	6.56	6.56
Group II.—Clerical and station forces								
Section 1: Storekeepers, assistant storekeepers, chief clerks, foremen, subforemen, and other clerical supervisory forces	25,588		6.10	7.14	6.66	6.42	6.42	6.88
Section 2 (a): Clerks with an experience of 2 or more years			4.11	5.15	4.67	4.43	4.43	4.75
Section 2 (b): Clerks with an experience of 1 year and less than 2 years			3.73	4.77	3.73	3.41	3.41	3.66
Section 3 (a): Clerks with an experience of less than 1 year			3.40	3.92	3.40	3.08	3.08	3.30
Section 3 (b): Clerks without previous experience:								
First 6 months					2.65	2.35	2.35	
Second 6 months					3.04	2.74	2.74	
Total (sections 2 and 3)	200,284		4.08	5.12	4.61	4.37	4.37	4.69
Section 4: Baggage agents and assistants	865		4.17	5.21	4.41	4.17	4.17	4.33
Baggage, parcel room, and station attendants	9,823		3.27	4.31	3.51	3.27	3.27	3.49
Total (section 4)	10,688		3.34	4.38	3.58	3.34	3.34	3.4
Section 5: Mechanical device operators	7,658		4.36	5.16	4.36	4.04	4.04	4.18
Office assistants	3,851		2.97	3.77	2.97	2.65	2.65	2.76
Elevator operators and other office attendants	1,182		3.11	3.01	3.11	2.79	2.79	2.96
Watchmen (without police authority)	3,601		3.43	4.23	3.43	3.11	3.11	3.17
Janitors and cleaners	7,669		3.01	3.81	3.01	2.69	2.69	2.87
Total (section 5)	23,961		3.44	4.24	3.44	3.12	3.12	3.29
Section 6: Messengers and office boys	6,942		2.41	2.81	2.41	2.09	2.09	2.17
Section 7: Truckers (station, warehouse, and platform)	41,967		3.19	4.15	3.67	3.35	3.51	3.52
Section 8 (a): Sealers, scalers, and perishable-freight inspectors	1,312		3.38	4.42	3.94	3.62	3.78	3.76
Section 8 (b): Callers, loaders, etc.	15,134		3.51	4.63	4.15	3.83	3.99	4.02
Total (section 8)	16,446		3.50	4.61	4.13	3.81	3.97	4.00
Section 9: Laborers (coal and ore docks and grain elevators)	2,752		4.04	4.72	4.04	3.72	3.88	4.13
Common laborers (station, warehouse, platform, and grain elevators)	4,240		3.32	4.00	3.32	3.00	3.16	3.22
Total (section 9)	6,992		3.52	4.20	3.52	3.20	3.36	3.58
Section 10: Telephone switchboard operators	1,545		3.12	3.92	3.12	3.33	3.33	3.39
Total, Group II	334,413							4.45

AVERAGE DAILY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS I CARRIERS—Continued

Class of employees	Number of employees, July, 1923	Average daily rates						Actual average daily rates in effect July, 1923
		December, 1917	U. S. Railroad Administration, January, 1920	U. S. Railroad Labor Board				
				May 1, 1920	July, 1921	July, 1922	July, 1923	
<i>Group III.—Maintenance-of-way and unskilled laborers</i>								
Section 1: Bridge and building gang foremen.....	5, 752		\$5. 95	\$7. 15	\$6. 35	\$5. 95	\$5. 95	\$6. 36
Section 2: Maintenance-of-way inspectors.....	667		6. 40	7. 60	6. 80	6. 40	6. 40	6. 54
Portable steam equipment operators.....	2, 346		5. 21	6. 41	5. 61	5. 21	5. 21	5. 38
Gang foremen (extra gang and work-train laborers).....	5, 003		4. 36	5. 56	4. 76	4. 36	4. 36	4. 81
Gang foremen (bridge and building, signal, and telegraph laborers).....	752		5. 60	6. 80	6. 00	5. 60	5. 60	6. 02
Total (section 2).....	8, 768		4. 96	6. 16	5. 36	4. 96	4. 96	5. 21
Section 3: Gang and section foremen.....	40, 312		4. 13	5. 33	4. 53	4. 29	4. 45	4. 64
Section 4: Bridge and building carpenters.....	25, 381		4. 45	5. 65	4. 85	4. 53	4. 53	4. 74
Bridge and building ironworkers.....	1, 052		5. 33	6. 53	5. 73	5. 41	5. 41	5. 59
Bridge and building painters.....	5, 087		4. 41	5. 61	4. 81	4. 49	4. 49	4. 76
Masons, bricklayers, plasterers, and plumbers.....	2, 209		5. 50	6. 70	5. 90	5. 58	5. 58	5. 62
Total (section 4).....	33, 729		4. 55	5. 75	4. 95	4. 63	4. 63	4. 83
Section 5: Skilled trades helpers.....	12, 579		3. 81	4. 49	3. 89	3. 81	3. 81	3. 87
Regular apprentices.....	196		3. 39	4. 07	3. 47	3. 39	3. 39	3. 27
Total (section 5).....	12, 775		3. 80	4. 48	3. 88	3. 80	3. 80	3. 86
Section 6: Laborers (extra gang and work train).....	74, 557		3. 04	3. 72	3. 04	2. 64	2. 80	2. 95
Track and roadway section laborers.....	240, 515		2. 98	3. 66	2. 98	2. 58	2. 74	2. 83
Maintenance-of-way laborers (other than track and roadway) and gardeners and farmers.....	8, 981		3. 13	3. 81	3. 13	2. 73	2. 89	2. 99
Common laborers (shops, enginehouses, etc.).....	67, 717		3. 32	4. 00	3. 32	2. 92	3. 08	3. 15
Total (section 6).....	391, 770		3. 04	3. 72	3. 04	2. 64	2. 80	2. 91
Section 7: Portable steam equipment operator helpers.....	1, 009		3. 83	4. 51	3. 83	3. 43	3. 59	3. 73
Pumping equipment operators.....	6, 186		2. 80	3. 48	2. 80	2. 40	2. 56	2. 59
Bridge operator and helpers.....	1, 541		3. 59	4. 27	3. 59	3. 19	3. 35	3. 45
Crossing and bridge flagmen and gatemen.....	23, 243		2. 54	3. 22	2. 54	2. 14	2. 30	2. 44
Total (section 7).....	31, 979		2. 67	3. 35	2. 67	2. 27	2. 43	2. 55
Section 8: Laborers (shops, engine houses, power plants, and stores).....	50, 181		3. 27	4. 07	3. 27	2. 87	3. 03	3. 15
Section 9: Gang foremen laborers (shops, engine houses, power plants, and stores).....	4, 265		4. 71	5. 51	4. 71	4. 31	4. 47	4. 63
Total, Group III.....	579, 531							3. 24
<i>Group IV.—Shop employees</i>								
Gang and other foremen:								
Hourly.....	12, 968	\$4. 05	5. 97	7. 01	6. 37	6. 37	6. 37	7. 19
Monthly.....		4. 97	8. 73	9. 77	9. 13	9. 13	9. 13	
Machinists.....	68, 845	4. 80	5. 78	6. 82	6. 18	5. 62	5. 62	5. 94
Boilermakers.....	22, 508	4. 71	5. 85	6. 89	6. 25	5. 69	5. 69	5. 96
Blacksmiths.....	10, 448	4. 95	5. 88	6. 92	6. 28	5. 72	5. 72	6. 03
Sheet-metal workers.....	12, 833	4. 40	5. 77	6. 81	6. 17	5. 61	5. 61	5. 95
Electrical workers.....	9, 749	4. 15	5. 71	6. 75	6. 11	5. 55	5. 55	5. 74
Carmen.....	142, 526	3. 58	5. 44	6. 48	5. 84	5. 15	5. 15	5. 41
Molders.....	1, 337	4. 88	5. 76	6. 80	6. 16	5. 60	5. 60	6. 41
Total (mechanics and foremen).....	281, 214							5. 66
Helpers, all crafts.....	138, 766	2. 85	3. 96	5. 00	4. 36	3. 80	3. 80	4. 04
Helper apprentices.....	7, 457	3. 11	4. 06	5. 10	4. 46	3. 90	3. 90	4. 18
Regular apprentices.....	14, 502	1. 84	2. 76	3. 80	3. 16	2. 60	2. 60	2. 82
Car cleaners.....	13, 476		3. 60	4. 00	3. 18	2. 78	2. 78	3. 14
Total, Group IV.....	455, 415							5. 03

WAGE RATES OF RAILROAD EMPLOYEES

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AVERAGE DAILY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS I CARRIERS—Continued

		Class of employees	Number of employees, July, 1923	Average daily rates					Actual average daily rates in effect July, 1923	
				December, 1917	U. S. Railroad Administration, January, 1920	U. S. Railroad Labor Board				
						May 1, 1920	July, 1921	July, 1922		July, 1923
		Group V.—Telegraphers, telephoners, etc.								
		Section 1: Station agents (telegraphers and telephoners).....	19,768		\$4.51	\$5.31	\$4.83	\$4.83	\$4.83	\$4.81
		Chief telegraphers and telephoners or wire chiefs.....	818		6.11	6.91	6.43	6.43	6.43	6.50
		Clerk telegraphers and clerk telephoners.....	13,914		4.44	5.24	4.76	4.76	4.76	4.71
		Telegraphers, telephoners, and towermen.....	27,705		4.61	5.41	4.93	4.93	4.93	4.90
		Total (section 1).....	62,205		4.57	5.37	4.89	4.89	4.89	4.85
		Section 2: Station agents (nonsupervisory—smaller stations—nontelegraphers).....	4,297		3.60	4.00	3.60	3.60	3.60	3.67
		Total, Group V.....	66,502							4.78
		Group VI.—Engine-service employees								
		Passenger engineers and motormen.....	13,438	\$4.39	5.68	6.48	6.00	6.00	6.00	
		Passenger firemen and helpers.....	13,096	2.68	4.18	4.98	4.50	4.50	4.50	
		Freight engineers and motormen, through.....	24,299	5.18	6.65	7.69	7.05	7.05	7.05	7.22
		Freight engineers and motormen, local.....	9,445	5.38	7.04	8.08	7.44	7.44	7.44	7.43
		Freight firemen and helpers, through.....	26,559	3.38	4.85	5.89	5.25	5.25	5.25	5.39
		Freight firemen and helpers, local.....	9,661	3.36	4.98	6.02	5.38	5.38	5.38	5.45
		Yard engineers and motormen.....	21,750	4.27	5.71	7.15	6.51	6.51	6.51	6.67
		Yard firemen and helpers.....	22,188	2.66	4.23	5.97	5.03	5.03	5.03	5.11
		Hostlers.....	10,648	2.65	4.35	5.79	5.15	5.15	5.15	5.22
		Hostler helpers.....	2,369	2.50	3.60	5.04	4.40	4.40	4.40	4.39
		Group VII.—Train-service employees								
		Passenger conductors.....	10,839	4.45	6.00	7.00	6.40	6.40	6.40	
		Passenger baggagemen.....	6,078	2.75	4.16	5.16	4.56	4.56	4.56	
		Passenger flagmen and brakemen.....	15,114	2.59	4.00	5.00	4.40	4.40	4.40	
		Freight conductors, through.....	17,354	4.08	5.40	6.44	5.80	5.80	5.80	5.91
		Freight conductors, local.....	9,376	4.47	5.92	6.96	6.32	6.32	6.32	6.37
		Freight brakemen and flagmen, through.....	40,347	2.75	4.08	5.12	4.48	4.48	4.48	4.59
		Freight brakemen and flagmen, local.....	24,698	3.00	4.48	5.52	4.88	4.88	4.88	4.95
		Yard foremen.....	21,712	3.77	5.34	6.96	6.32	6.32	6.32	6.34
		Yard helpers.....	54,645	3.42	5.01	6.48	5.84	5.84	5.84	5.87
		Switch tenders.....	6,160	2.62	4.00	5.04	4.40	4.40	4.40	4.41
		Stationary engineers, firemen, etc.								
		Section 1: Stationary engineers (steam).....	2,647		4.74	5.78	5.14	4.98	4.98	5.18
		Section 2: Stationary firemen and oilers (steam and electrical plants).....	5,430		3.95	4.99	4.35	4.19	4.19	4.31
		Section 3: Coal passers and water tenders (steam station boiler room).....	554		3.46	4.26	3.78	3.62	3.62	3.70
		Total (stationary engineers, firemen, etc.).....	8,631							4.54
		Signal department employees								
		Sections 1 and 2: Gang foremen (signal and telegraph skilled trades).....	1,211		6.62	7.66	7.02	6.62	6.62	7.14
		Section 3: Signalmen and signal maintainers.....	8,254		5.73	6.77	6.13	5.73	5.76	5.91
		Assistant signalmen and assistant signal maintainers.....	2,502		4.66	5.70	5.06	4.66	4.66	4.63
		Total (section 3).....	10,756		5.52	6.56	5.92	5.52	5.54	5.62
		Section 4: Signalmen and signal maintainers' helpers.....	3,715		3.98	4.78	4.30	3.82	3.82	3.89
		Total (signal department employees).....	15,682							5.35

AVERAGE DAILY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS I CARRIERS—Concluded

Class of employees	Number of employees, July, 1923	Average daily rates					Actual average daily rates in effect July, 1923	
		December, 1917	U. S. Railroad Administration, January, 1920	U. S. Railroad Labor Board				
				May 1, 1920	July, 1921	July, 1922		July, 1923
<i>Marine department employees</i>								
Barge, lighter, and gasoline launch officers and workers	1,705			\$4.21	\$4.10	\$4.18	\$4.18	
Deck officers (ferryboats and towing vessels)	790			6.43	6.44	6.54	6.54	
Engine-room officers (ferryboats and towing vessels)	760			6.55	6.51	6.60	6.60	
Deck and engine-room workers (ferry and towing vessels)	3,844			4.25	4.35	4.24	4.24	
Deck and engine-room officers and workers (steamers)	1,866			2.71	2.12	2.23	2.23	
Floating equipment shore workers and attendants	951			3.77	3.51	3.54	3.54	
Total (marine department employees)	9,916			4.22	4.06	4.13	4.13	

Earnings of Male and Female Workers in Massachusetts Manufacturing Establishments, March, 1924

AVERAGE weekly earnings of male and female employees in various industries in Massachusetts in March, 1924, are given in the following statement received from the Department of Labor and Industries of that State:

EMPLOYMENT AND EARNINGS OF MALE AND FEMALE WORKERS IN REPRESENTATIVE MANUFACTURING ESTABLISHMENTS IN MASSACHUSETTS IN MARCH, 1924

Industry	Establishments reporting	Number of employees on payroll		Average weekly earnings	
		Males	Females	Males	Females
Automobiles, including bodies and parts	6	1,511	69	\$29.40	\$18.09
Boot and shoe cut stock and findings	31	933	358	23.29	14.00
Boots and shoes	28	3,174	2,398	29.27	18.71
Boxes, paper	17	545	459	22.13	15.78
Bread and other bakery products	18	1,578	627	26.03	12.26
Clothing, men's	15	368	742	32.33	15.35
Clothing, women's	16	72	749	33.21	15.18
Confectionery	7	870	1,621	22.25	15.09
Cotton goods	9	2,302	2,185	19.91	14.87
Cutlery and tools	9	988	120	26.76	16.20
Dyeing and finishing textiles	5	2,876	976	24.95	13.99
Electrical machinery, apparatus, and supplies	3	6,357	823	29.24	19.03
Foundry and machine shop products	19	2,652	131	28.19	17.40
Furniture	14	1,154	164	29.39	18.01
Hosiery and knit goods	5	348	1,112	28.32	17.08
Jewelry	12	414	232	28.18	15.55
Leather, tanned, curried, and finished	11	2,592	175	27.49	15.46
Musical instruments	6	521	58	32.42	14.09
Paper and wood pulp	15	2,944	1,019	29.00	15.39
Printing and publishing, book and job	25	646	213	33.51	20.47
Printing and publishing, newspaper	13	476	72	35.55	27.46
Rubber goods	6	2,200	451	26.46	13.83
Silk goods	9	959	1,247	24.05	16.10
Stationery goods	5	206	389	27.85	15.17
Textile machinery and parts	3	2,254	140	25.47	17.64
Tobacco	4	501	72	28.42	16.82
Woolen and worsted goods	13	2,351	1,832	29.80	18.44
All other industries	62	16,340	3,763	29.64	15.38
Total	386	58,192	22,197	28.06	16.12

Wages of Farm Laborers in Canada

THE following table, showing average monthly and annual wages of Canadian farm labor, is reproduced from the February issue of the Monthly Bulletin of Agricultural Statistics, published by the Dominion Bureau of Statistics:

AVERAGE WAGES OF FARM LABORERS IN CANADA, AS ESTIMATED BY CROP CORRESPONDENTS, 1921 TO 1923

Province	Males				Females			
	Per month, summer season			Per year, wages and board	Per month, summer season			Per year, wages and board
	Wages	Board	Wages and board		Wages	Board	Wages and board	
Canada:								
1921.....	\$45	\$22	\$67	\$609	\$24	\$18	\$42	\$419
1922.....	38	21	59	504	22	17	39	418
1923.....	40	21	61	611	22	17	39	422
Prince Edward Island:								
1921.....	29	16	45	460	15	12	27	257
1922.....	26	14	40	415	15	12	27	295
1923.....	28	15	43	472	16	12	28	309
Nova Scotia:								
1921.....	36	20	56	502	17	14	31	352
1922.....	31	19	50	536	16	13	29	327
1923.....	36	20	56	555	18	14	32	340
New Brunswick:								
1921.....	35	19	54	575	17	14	31	332
1922.....	34	19	53	520	17	15	32	317
1923.....	41	18	59	615	18	14	32	364
Quebec:								
1921.....	39	19	58	559	18	14	32	335
1922.....	35	18	53	510	17	12	29	306
1923.....	40	19	59	559	19	13	32	334
Ontario:								
1921.....	40	20	60	609	22	16	38	418
1922.....	37	20	57	569	21	16	37	397
1923.....	38	21	59	597	22	17	39	427
Manitoba:								
1921.....	53	26	79	708	28	22	50	552
1922.....	40	23	63	640	24	19	43	471
1923.....	40	22	62	631	23	19	42	459
Saskatchewan:								
1921.....	54	26	80	795	29	29	51	556
1922.....	40	24	64	673	25	21	46	502
1923.....	42	23	65	652	24	20	44	484
Alberta:								
1921.....	52	26	78	746	31	23	54	566
1922.....	41	23	64	628	24	21	45	482
1923.....	46	24	70	704	27	21	48	506
British Columbia:								
1921.....	52	27	79	855	31	23	54	613
1922.....	47	28	75	849	30	24	54	636
1923.....	50	26	76	775	30	23	53	640

Wages in the German Merchant Marine, February, 1924

THE April 10, 1924, issue of *Wirtschaft und Statistik*, the bulletin of the German Statistical Office, shows (page 217) the wage rates paid under collective agreements, to officers and crews of the German merchant marine. These rates, which became effective on November 1, 1923, are fixed in rentenmarks,¹ and apply to ocean-going vessels of over 100 tons gross with the exception of fishing and salvage vessels, tugboats, and barges. While on voyages in the North Sea and Baltic Sea, officers receive only two-thirds of these rates.

In the following table are shown the average monthly money and "real" wage rates effective in the German merchant marine in February, 1924, and the real rates are compared with the rates effective in 1913:

AVERAGE MONTHLY MONEY AND REAL WAGE RATES IN GERMAN MERCHANT MARINE, 1913 AND FEBRUARY, 1924

[Mark at par=3.8 cents. Exchange rate varies. Rentenmark circulates only in Germany, at a value equal to the gold mark, or 23.3 cents]

Occupation	Wage rate, 1913 ¹	Money wage rate, February, 1924 ²	Real wage rate, February, 1924 ³	
			Amount	Per cent of 1913 rate
	Marks	Rentenmarks	Marks	
Captains.....	325.00	180.00	173.00	53.2
Fourth officers.....	126.00	⁴ 94.00	90.50	71.8
Chief engineers.....	464.00	240.00	231.00	49.8
Fourth engineers.....	142.00	⁴ 120.00	115.50	81.3
Chief boatswains, chief carpenters.....	108.00	⁵ 67.50	65.00	60.2
Able seamen.....	76.00	⁵ 61.50	59.00	77.6
Ordinary seamen.....	39.00	⁵ 28.50	27.50	70.5
Apprentice seamen.....	18.00	⁵ 11.50	11.00	61.1
Machinists.....	78.00	⁵ 65.50	63.00	80.7
Firemen.....	87.00	⁵ 63.50	61.00	70.1
Coalers.....	71.00	⁵ 57.00	55.00	77.6

¹ These rates include all known allowances, but do not include board which is also furnished.

² Board is furnished free.

³ Computed on the basis of the national cost-of-living index.

⁴ Inclusive of 25 per cent extra pay for overtime.

⁵ Inclusive of 5.5 per cent extra pay for overtime.

A comparison of the wage rates effective in the German merchant marine in February, 1924, with those effective in 1913 brings out the same phenomena that are characteristic of the general development of wages in Germany: A leveling of wages and decreased purchasing power. In February, 1924, a captain's monthly salary was only 3.2 times as much as the monthly wage of a coaler, as compared with 4.6 times in 1913. For a chief engineer the corresponding figures are 4.2 as against 6.5, for a boatswain or carpenter 1.2 as against 1.5. Only in the case of the ordinary and apprentice seaman has this difference increased; these receive now only 50 and 20 per cent, respectively, of the wage of a coaler, as against 55 and 25 per cent in 1913. The real wages of those occupations that were best remunerated in pre-war times have decreased the most. Captains receive at present only one-half of their pre-war salaries, while the real wages of the officers of lower rank and of the crews amount now to between

¹ The rentenmark circulates only in Germany, at a value equal to the gold mark, or 23.3 cents.

60 and 80 per cent of their pre-war wages. In judging the purchasing power of these wages it should be taken into consideration that officers and crew receive their board free. Since their board has the same real value now as before the war, the rations having remained the same, the percentage which their real wages form of the pre-war wages would be somewhat higher if the value of the board furnished them were taken into account. The salaries of the ship's officers shown in the preceding table are minimum salaries. All large shipping companies pay bonuses based on the length of service, in addition to these rates, and special allowances.

Wages in Mexican Industries, 1922

"MEXICO as an industrial nation" is the subject of an article by Hector Lazo, special agent of the Department of Commerce, which appears in the May, 1924, issue of the Pan American Union Bulletin. According to the author, some of the industrial enterprises in Mexico "compete very seriously with imported merchandise, while others are producing to the point where they are not only supplying merchandise for home consumption but are exporting comparatively large quantities of their products to neighboring countries."

The following table shows the number of textile plants in Mexico, classification thereof, capital investment, number of employees, and the average daily wage paid for labor:

DAILY WAGES OF MEN, WOMEN, AND CHILDREN EMPLOYED IN MEXICAN TEXTILE INDUSTRIES, OCTOBER 31, 1923

[Figures are in United States currency. Conversions have been made at the rate of 2 pesos=\$1]

Nature of plant	Plants in operation	Capital invested	Men		Women		Children	
			Number employed	Average wages	Number employed	Average wages	Number employed	Average wages
Spinning yarns.....	7	\$508,397	471	\$0.87	193	\$0.67	61	\$0.40
Woven goods.....	2	128,808	240	.89	85	.63	1	.52
Knitted goods and yarns.....	75	19,514,073	15,412	1.01	2,626	.67	1,709	.40
Knitted and woven goods.....	6	1,273,248	671	1.29	1,783	.93	42	.57
Yarns and knitted and woven goods.....	3	940,741	1,066	.93	434	.67	64	.38
Yarns and woven and printed goods.....	12	13,241,766	10,292	1.19	1,574	.91	1,115	.43
Printed goods only.....	2	425,976	317	1.38	7	.75	54	.40
Dyed goods only.....	1	20,587	15	.60				
Total.....	108	36,053,596	28,484	1.02	6,702	.75	3,046	.45

The table below shows the average wages paid in the various industries in Mexico during 1922, together with maximum and minimum wages for men and women:

DAILY WAGES PAID IN MEXICO DURING 1922, BY INDUSTRIES

[Wages are given in United States currency. Conversions have been made at the rate of 2 pesos=\$1]

Industry	Maximum wage		Minimum wage		Average wage	
	Men	Women	Men	Women	Men	Women
Coffee mills.....	\$1.37	\$0.50	\$0.75	\$0.37	\$1.06	\$0.44
Pastry shops.....	2.94	.68	1.00	.50	1.97	.59
Candy factories.....	2.13	.97	.74	.52	1.44	.75
Wines and liquors.....	1.43	.78	.69	.56	1.06	.67
Tobacco factories.....	2.66	1.11	1.15	.84	1.91	.97
Print shops.....	2.98	1.17	.97	.53	1.97	.85
Jewelry shops.....	2.67	1.44	1.33	.85	2.00	1.14
Pottery and chinaware.....	2.18	1.13	1.31	.80	1.74	.96
Carpenter shops.....	1.77	-----	1.07	-----	1.42	-----
Plumbing establishments.....	1.72	1.37	.75	.52	1.22	.95
Marble works.....	2.30	-----	1.12	-----	1.71	-----
Lumber shops.....	1.91	-----	1.28	-----	1.59	-----
Cooperages.....	1.52	-----	.73	-----	1.12	-----
Foundries and smelters.....	2.50	-----	.72	-----	1.60	-----
Blacksmith shops.....	1.63	-----	.92	-----	1.27	-----
Cabinet shops.....	2.56	2.08	1.16	.27	1.86	1.17
Furniture shops.....	2.68	.87	.90	.55	1.79	.71
Match factories.....	1.68	.65	.75	.35	1.22	.50
Ink factories.....	2.50	-----	1.00	-----	1.75	-----
Paint factories.....	2.00	.75	1.80	-----	1.75	.75
Soap factories.....	1.11	.87	1.22	.54	1.17	.70
Candle factories.....	1.31	.56	.68	.48	1.00	.52
Cotton textile mills.....	2.23	1.04	.75	.54	1.49	.79
Underwear factories.....	2.56	1.55	.90	.56	1.73	1.05
Hat factories.....	1.75	1.15	.86	.53	1.30	.80
Tailor shops.....	1.68	.87	.97	.50	1.32	.68
Shoe factories.....	2.60	1.10	1.19	.61	1.90	.85
Perfume factories.....	1.61	1.23	.75	.39	1.18	.81
Power stations (electric).....	3.55	-----	1.80	-----	2.67	-----
Leather goods.....	2.00	1.25	.87	1.00	1.43	1.12
Paper factories.....	2.10	-----	.68	-----	1.39	-----
Cardboard-box factories.....	2.14	.56	.77	.27	1.45	.42

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CHILD LABOR

Child Labor in the United States, 1910 and 1920¹

THE Census Bureau has recently published a study of the data relating to children who were gainfully employed at the time of the census taking, from which it appears that in the decade from 1910 to 1920 there was a decrease in both the number and proportion of employed children, a decrease the more striking because for some decades previously the proportion had remained comparatively steady, while the absolute number had increased.

In continental United States the total number of children 10 to 15 years of age reported as engaged in gainful occupations in 1920 was 1,060,858, representing 8.5 per cent of all children in that age period, as compared with 1,990,225, or 18.4 per cent, in 1910; 1,750,178, or 18.2 per cent, in 1900; 1,503,771, or 18.1 per cent, in 1890; and 1,118,356, or 16.8 per cent, in 1880.

This decrease was general throughout the Union, and was more marked for boys than for girls. Thus for boys the decrease was from 1,353,139, or 24.8 per cent, in 1910 to 714,248, or 11.3 per cent, in 1920, while for girls the corresponding figures were 637,086 (11.9 per cent) in 1910 and 346,610 (5.6 per cent) in 1920. Only six States showed an increase in the number of children gainfully employed, and the District of Columbia was the solitary division which showed an increase in the percentage.

A large part of the decrease occurred among children engaged in agricultural pursuits, who in 1910 numbered 1,432,428, and in 1920 only 647,309, a decrease of 54.8 per cent. This fact suggests that a part, at least, of the apparent falling off is fallacious, due to a change in the time of collecting the census figures. In 1910 they were collected as of April 15; in 1920, as of January 1. April is a time of great agricultural activity when, if ever, children in rural districts are apt to be at work; January is a dull season for farming.

Taking the census in January undoubtedly resulted in a smaller number of children being returned by the census enumerators as engaged in agricultural pursuits than would have been returned had the census been taken as of April 15, as it was in 1910. It is believed that when the enumeration was made in 1920 (as of January 1) many children usually employed as farm laborers were not then at work and were not returned by the census enumerators as gainfully occupied. The enumerators' schedules show that a considerable proportion of the children living on the home farm were returned as neither attending school nor as being gainfully employed.

The figures as to nonagricultural employment, however, are presumably not affected by this change, and they also show a decrease, though this is not so marked as in agricultural occupations; in 1910, the proportion of the children aged 10 to 15 engaged in agricultural pursuits was 13.2 per cent, and in 1920 it was 5.2 per cent, the corresponding proportions for those in nonagricultural pursuits being 5.2 per cent and 3.2 per cent.

¹ U. S. Bureau of the Census. Children in gainful occupations at the Fourteenth Census of the United States. Washington, 1924. 276 pp.

Within the group of nonagricultural pursuits the movement was by no means uniform, 58 occupations showing a decrease and 24 an increase from 1910 to 1920 in the number of children employed.

Among the more important occupations, the decrease was quite marked in apprentices to dressmakers and milliners (67.9 per cent), coal-mine operatives (61.5 per cent), laborers and semiskilled operatives in the building and hand trades (56.1 per cent), launderers and laundresses (not in laundry) (62.7 per cent), and servants (57.6 per cent), while the increase was particularly large in clerks (except clerks in stores) (80.4 per cent), janitors and sextons (56.7 per cent), laborers and semiskilled operatives in electrical supply factories (55.8 per cent), laborers, garage, road, and street (90.6 per cent), and stenographers and typists (109.6 per cent).

An important feature both of the general decrease and of many of the decreases in specific occupations is that it is most apparent among the younger children. The employment of children under 14 is usually considered more open to serious objection than that of older children, and the campaign against it is apparently bearing fruit. The number of children aged 10 to 13 gainfully employed in nonagricultural pursuits fell from 95,841 in 1910 to 49,105 in 1920, while the proportion of this age group so employed fell from 1.3 per cent to 0.6 per cent. The decrease was general throughout the country, though it was most evident in the South Atlantic and East South Central States, where the employment of these younger workers had been greatest in the preceding decade. Their importance as an industrial factor naturally changed considerably with this decrease, though this varied widely according to occupation. In 1910 children aged 10 to 13 formed 17.2 per cent of the total 10 to 15 year old group engaged in nonagricultural pursuits; in 1920 the proportion had sunk to 11.9 per cent. Among cotton-mill operatives the decrease was from 29 per cent in 1910 to 2.8 per cent in 1920, and among coal-mine operatives from 11.6 per cent to 8.3 per cent, while among newsboys there was an actual increase, the proportion rising from 58.9 per cent to 62.3 per cent.

The reasons for the decrease in the employment of children in general, and especially of this younger group, are discussed at some length. To a large extent, it is attributable to the increase in the amount and stringency of child-labor legislation by the States, and, in certain pursuits, to the Federal child-labor laws which were eventually declared unconstitutional. But legislation in its turn is due to public opinion, and this opinion may make itself felt beyond the limits of legislation.

The advance during the decade 1910 to 1920 in the legislation restricting the employment of children and requiring their attendance at school is evidence that during this time there was also considerable advance in public opinion against the employment of young children and in favor of their attendance at school; and it is believed that the greater popular disapproval of child labor decreased somewhat the tendency to employ young children.

Employment of Children in Virginia

THE following table summarizes certain statistics on the employment of children in Virginia, published in the twenty-fifth and twenty-sixth annual reports of the Bureau of Labor and Industrial Statistics of that State:

NUMBER AND AGES OF CHILDREN GRANTED BADGES FOR STREET TRADES AND EMPLOYMENT CERTIFICATES FOR MERCANTILE AND MANUFACTURING ESTABLISHMENTS

Age	Number of children granted—					
	Badges for street trades			Employment certificates for mercantile and manufacturing establishments		
	Year ending Sept. 30, 1922	Year ending Sept. 30, 1923	Total	Year ending Sept. 30, 1922	Year ending Sept. 30, 1923	Total
12 years.....	480	481	970			
13 years.....	491	495	986			
14 years.....	556	725	1,281	751	1,435	2,186
15 years.....	310	377	687	895	1,385	2,280
Total.....	1,846	2,078	3,924	1,646	2,820	4,466

LABOR AGREEMENTS, AWARDS, AND DECISIONS

Decisions of Railroad Labor Board

Wages of Division Linemen in Telegraph Department

A QUESTION involving the proper rate of pay of division linemen in the telegraph department was recently settled by the Railroad Labor Board (Decision No. 2312, March 26, 1924) in a dispute between the Federated Shop Crafts and the Chicago, Rock Island & Pacific Railway Co. The question was whether these employees should be classified as electricians, as defined by Rule 140, or as linemen, as defined by Rule 141 of the shopmen's agreement promulgated by the United States Railroad Administration.

The dispute was of long standing. The classification of electricians and linemen was made by supplement 4 to General Order No. 27, issued July 25, 1918. By Rules 43 and 45 of the shopmen's agreement electricians were given a rate of 4 cents per hour more than linemen, effective May 1, 1919. The employees contended that the division linemen were performing service covered by Rule 140, which defines electricians' work, and should be rated as electricians rather than as linemen.

On December 13, 1919, a joint submission of the case was made to the Director General of the Railroads setting forth the contentions of the respective parties to the dispute. This case was decided by Adjustment Board No. 2 of the United States Railroad Administration on December 7, 1920. The board, on finding that division linemen spent 10 per cent of their time on inside inspection and repair work, rated them as electricians and they were paid at the higher rate through February 29, 1920, the date when the Government relinquished control over the railroads.

The question then came before the Railroad Labor Board for decision as to the status of division linemen after February 29, 1920. The employees contended that inasmuch as the Railroad Administration had decided that division linemen should be classified as electricians, because they were doing electricians' work part of the time; as the transportation act, 1920, continued the rates established by the United States Railroad Administration till September 1, 1920; and as decision No. 2 of the Railroad Labor Board continued the national agreement until further hearings could be held, they were entitled to the electricians' rate until such time as this rate should be changed by agreement or decision of the Railroad Labor Board. The carriers contended that division linemen were not electricians, but were in a class by themselves and that the lower rate of pay was adequate for the services they performed.

The Railroad Labor Board rendered its opinion that under the circumstances—

It would be inconsistent for the Railroad Labor Board to rule other than that the rates established in decisions of the United States Railroad Administration for the period of Federal control, regardless of when said decisions were rendered, are "rates established by or under the authority of the United States

Railroad Administration" and to which rates the increases specified in Decision No. 2 should be added and subsequent authorized adjustments made accordingly.

It decided that the rate authorized in decision of Railway Board Adjustment No. 2 was proper, and further—

Based on the evidence in this case, the employees classified as and performing the work of linemen as authorized in Rule 141 shall be compensated on the basis of Rule 45 with the authorized subsequent adjustments. Employees classified as linemen and required to perform work as authorized in Rules 140 and 141 are composite workmen and shall be paid the rate applicable to employees performing the work specified in Rule 140 [electricians' work].

If difference of opinion exists as to the actual work being performed by these employees, proper joint investigation shall be made by the duly authorized representatives of the carrier and the employees, and rate of pay shall be established in accordance with the preceding paragraph of this decision.

Reinstatement

A CASE involving the right of a railroad to discharge an employee in order to avoid a strike was recently decided by the Railroad Labor Board (Decision No. 2304, March 24, 1924). The action grew out of the July, 1922, strike of the shopmen, members of the Federated Shop Crafts. After the men on the Great Northern Railroad had been out for several months an understanding was reached, January 6, 1923, by which the strike was called off and the strikers were to be taken back "in such numbers as the exigencies of the service required." The memorandum of the agreement, which was undated and unsigned, also provided that it should be optional with former employees who applied for reemployment whether they should join the new association, the Associated Organizations of Shop Crafts' Employees, and that vacancies should be "filled in the order of seniority among themselves."

One of the former employees who returned to service was discharged three days later for refusal to join the new association because of "his individual right to select the organization, if any, to which he desired to belong" as permitted by the memorandum ending the strike.

The essential parts of the opinion and decision of the Railroad Labor Board, in considering the case, follow:

Opinion.—Said memorandum was an agreement between the carrier and the strikers. Though not formally executed, it was the result of negotiations conducted between the carrier and these strikers and it was announced by the preconcerted and coordinated arrangement shown on its face. After its issuance, the carrier recognized its binding force by taking the proper steps to carry it out.

The employee whose grievance is involved herein entered the service of the carrier in compliance with the terms of said memorandum, and was subsequently discharged on account of the protest to the carrier of the representatives of the association arising from his refusal to join said association. The carrier yielded to the threats of the association to strike, discharged the employee, and thus violated its agreement which had left it optional with the employee as to joining the association. Said provision in the memorandum was not in conflict with the agreement between the carrier and the shop association and was otherwise lawful and unobjectionable.

Decision.—The Railroad Labor Board decides that System Federation No. 101 or its affiliated organizations has the right to represent individual employees having grievances under the provisions of existing agreements. The board sustains the complaint of [the] machinist, and orders that he be restored to the service of the carrier with seniority rights in accordance with said memorandum, and that he be paid for time lost since February 2, 1923, less any amount earned in other employment subsequent to that date.

[1285]

Strikers not Employees

ON THE same day that the preceding decision was rendered, the Railroad Labor Board rendered another (Decision No. 2302) growing out of the same strike. In this case, a certain striking car repairer, after the strike was declared at an end, was notified to report for duty, but when he reported, the carrier declined to reemploy him because of his refusal to sign an application for membership in the new association, basing his refusal on the first section of the memorandum which reads as follows:

It is optional for former employees who are applicants for employment whether they sign application of new association.

"The carrier insists that its declination was rendered proper and necessary by the conduct of the chairman of the striking organization who had issued certain circulars to the strikers immediately after the strike had been called off. These circulars, it is alleged, violated the assurance given in the memorandum that there was to be 'no propaganda or bitterness,' and endangered peaceful and harmonious conditions in the shops."

Extracts from the opinion of the Labor Board follow:

Opinion.—Assuming that the memorandum in question constituted an agreement, it was an agreement between the carrier and men not in its employ.

Over that portion of said memorandum which is alleged to be an agreement for the employment of the strikers, the Railroad Labor Board has no jurisdiction. The transportation act, 1920, gives the Board jurisdiction over railway employees only. The memorandum does not treat of the strikers as employees, but speaks of them as "former employees" and "applicants for employment." This was the view adopted by both parties and is obviously correct. As a matter of fact, the shop employees at that time were the men who had been retained or accepted employment during the strike, and the recognition of this fact is clear throughout the memorandum. It speaks of the vacancies existing, and states that very few vacancies did exist in certain of the crafts.

At the time the memorandum was made, Mr. B. was not an employee of the carrier and has not since become one. This case therefore does not involve a dispute between a carrier and an employee as contemplated by the statute.

The board therefore declined to take jurisdiction of the question whether the carrier had violated its agreement in refusing to employ the car repairer.

A vigorous dissenting opinion was filed, in which the following statements were made:

The refusal of the employer to engage the services of an applicant for employment who can meet all requirements of the agreement immediately creates a dispute which may result in a substantial interruption to the operation of a carrier, as a situation of this kind directly concerns every employee of the class or craft party to the agreement and more particularly so where an employer seeks to impose as a condition of employment that all applicants shall be required to join an organization other than the one which negotiated the agreement and with which the applicant does not desire to affiliate.

To hold that the Railroad Labor Board has no jurisdiction over a dispute arising as a result of a carrier disregarding the provisions of an agreement presumably made in good faith is unsound and wholly out of keeping with the intent and purpose of the labor provisions of the transportation act, 1920.

In the supporting decision the following statement is made:

It may not be amiss simply to repeat that the Railroad Labor Board has held in this case that it has no jurisdiction over those who are not railway employees but are merely applicants for employment. Having so held, it was unnecessary to pass upon any of the other questions incidentally involved.

[1286]

Union Membership

DISCHARGE of employees for joining a union was considered by the Railroad Labor Board in Decision No. 2305, March 26, 1924. Because of the shopmen's strike in July, 1922, the Nashville, Chattanooga & St. Louis Railway thereafter refused to employ any member of the Federated Shop Crafts and discharged a machinist for rejoining it after being hired "with the express and distinct understanding that he was not a member of the Federated Shop Crafts and would never so long as he was an employee of the [company] join any of those organizations."

The employees insisted that a requirement of nonmembership in any particular union as a condition of securing employment was a violation of the terms of the transportation act, 1920.

The opinion of the board expresses its views on the question:

The carrier contends that it had the right to refuse employment to men who had participated in the strike and had tried to throttle the operation of its essential public service, and that it had the right to impose on a striker as a preliminary condition to reemployment an obligation that he would not again become a member of the Federated Shop Crafts, the organization which precipitated and conducted the strike.

The question as to the right of the carrier either to employ or decline to employ Mr. O. is not the issue in this case. The real and serious question and one that has not heretofore been presented to the board is whether or not a carrier has the right to require a prospective employee to surrender in advance his future freedom of action as a citizen and employee in the exercise of his rights under the law.

The transportation act, 1920, in substance and effect, guarantees to every railway employee the right to participate in the selection of his representatives in the conferences, negotiations, and general procedure under the law.

This provision would be nullified if the carrier when employing a man could require him to pledge his future action as to affiliation or nonaffiliation with labor organizations. Such a pledge would forever deprive an employee of the rights conferred upon him by an act of Congress, or rather, indeed, the rights which he already possessed and which Congress merely recognized and affirmed. To impose upon an employee such a condition is not only unlawful, but it is inherently unfair and unjust.

Employees must, under the law, be left free to choose the labor organization with which they will affiliate.

In view of the fact, however, that the employee voluntarily made the agreement in question and afterwards repudiated it, it would not be an act of good faith to permit the employee to reap the benefit of compensation for time lost.

Decision.—The Railroad Labor Board decides that the employee shall be reinstated with seniority rights unimpaired, but without pay for time lost.

Discharge

A DECISION of the Railroad Labor Board relative to summary discharge of employees was made in Decision No. 2286, March 20, 1924. The general chairman of the Brotherhood of Maintenance of Way Employees on the Pennsylvania Railroad was discharged for "circularizing the employees with attacks on the integrity of the officers of the carrier and also vilifying the employees with whom he came in contact who were not members of his organization." The carrier stated that the case "involves matters of discipline, which in the very nature of things must be left to the carrier alone to determine in order to secure efficient and economical management," and denied that his "affiliation with the United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers had anything to do with its action in relieving him from the service."

[1287]

The decision of the board was to the effect that the discharge was not justified, and directed his reinstatement with seniority rights unimpaired and with pay for time lost.

Porters as Brakemen

THE action of carriers in discontinuing the service of brakemen on passenger trains and filling such positions with negro porters has been held by the Railroad Labor Board to be a violation of the schedule agreement, effective March 1, 1920, and of supplement 12 to General Order No. 27 of the United States Railroad Administration.

Five decisions, Nos. 2329 to 2333, each dated April 9, 1924, were rendered in the following words:

The Railroad Labor Board decides that brakemen who have been displaced or whose services have been discontinued, all or any part of whose duties were afterwards performed by porters, shall be reinstated and compensated for any wage loss sustained thereby.

Deduction for Wage Overpayments

THE question whether a company was authorized to deduct for overpayments was decided in Decision No. 2310 of the Railroad Labor Board, announced March 26, 1924.

The wages of a drawbridge operator on the Delaware, Lackawanna & Western Railroad were increased successively September 1, 1918, by supplement 8 to General Order 27, which also established the eight-hour day with pro rata payment for the ninth and tenth hour and time and a half thereafter, by the agreement effective December 16, 1919, and by Decision No. 2 of the Labor Board, effective May 1, 1920.

In January, 1921, five errors in his ratings were discovered, showing that he had been overpaid \$324.99 between September 1, 1918, and January 16, 1921. Under protest the employee signed an agreement allowing the carrier to deduct \$25 a month from his pay until the alleged overpayment should be absorbed.

An agreed statement of facts was submitted to the Labor Board, accompanied by three questions, the first, the only one of present concern, being whether the company was "justified in deducting its claim of overpayment for the period extending from September 1, 1918, to January 31, 1921." To this the Labor Board answered in the negative and rendered the following decision:

Nothing in the evidence indicates that the employee in question had knowledge that he was improperly rated or paid under the provisions of supplement 8 to General Order No. 27 until the carrier raised the question on or about February 14, 1921. The board, however, decides that the carrier was justified in making correction in the rate of pay for the period subsequent to February 14, 1921.

The board also directed that "subsequent adjustments are to be made in accordance with wage decisions issued by the Railroad Labor Board which are applicable to this carrier."

Electrotypers—Boston

BOSTON Electrotypers Union No. 11 has recently made an agreement with the J. S. Cushing Co. (the Norwood Press), of Norwood, to expire May 24, 1925. The company agreed to employ not less than six journeymen members of the union, to hire only union men in the future, and to apply union scales and working conditions to the nonunion men in its electrotyping department "when those men have served the period of five years at the trade."

The weekly wage scale is as follows:

Foremen, not less than \$1 a day more than the scale of journeymen molders or finishers.	
Assistant foremen.....	\$49. 50
Molders and finishers.....	47. 50
Builders and casters.....	44. 00
Battery men, blockers, and finishers' helpers.....	40. 50
Lumpers, optional.	

Forty-eight hours constitutes a week's work, to be performed between 7 a. m. and 5.30 p. m., with no work on Saturday after 12.30 p. m. Night forces work 40 hours, 5 nights per week. Overtime rates, time and a half; Sundays, holidays, Saturdays after 5 p. m. and other days after 10 p. m., double time.

Other clauses of interest are the following:

It is mutually understood and agreed by and between the parties hereto that the party of the first part will not institute or engage in any lockout, nor will the members of the party of the second part institute or engage in any strike or boycott during the term of this agreement.

The party of the second part reserves to its members the right to refuse to execute all struck electrotyping or stereotyping work received from or destined for unfair employing electrotypers or stereotypers.

Whenever any difference between the parties hereto shall arise as to the interpretation of this agreement, it shall be the duty of either party to this agreement to make a complaint in writing to the other party hereto, specifying the nature of said difference. Whereupon a board of conciliation shall be created under this agreement, to consist of two members of the party of the first part and two members of the party of the second part, each party having a voting power of two, which board of conciliation shall have power by a majority vote to finally adjust, settle, or regulate said difference. This board shall meet within one week after such difference shall be presented and render a decision thereon within three days thereafter. Should said board be unable to decide any difference submitted to it for determination, said board shall then by unanimous vote of the four members select an additional or fifth member within the period of 30 days. Should the board fail to select an additional or fifth member within the period of 30 days the selection of the fifth member shall immediately devolve upon a representative of the J. S. Cushing Co. and the president of the International Stereotypers & Electrotypers Union. The decision of such board of five, as then selected or constituted, shall be final and binding upon all parties thereto.

The union has practically the same agreement with Ginn & Co., of Cambridge; the Plimpton Press, of Norwood; Rumford Press, of Concord, N. H.; and has verbal agreements with establishments in Boston and Providence. At the Rumford Press the hours, however, are 44 a week and wages \$4 a week less than the rates given above.

Painters, Decorators, and Paper Hangers—Pittsburgh

THE Brotherhood of Painters, Decorators, and Paperhangers of Pittsburgh recently adopted a revised scale of wages and working rules, effective until April 1, 1925, which contains among the working rules some interesting provisions as to safety and apprenticeship. As to safety, it is stipulated that when men are painting the outside of window frames above the third story, if swing work is not practical, safety belts must be furnished by the employer, and that employees have the right to test the safety and sanitary character of any appliance which they are obliged to use. Moreover, the employer must take out insurance against accident.

ARTICLE VIII

It shall be the privilege of the employer to build and move scaffolding as best adapted for the prosecution of the work and the safety of employee, and the employees have the privilege of testing out all scaffolding.

ARTICLE IX

SECTION 1. Where drop cloths and rags are used, they shall be furnished to workmen in a sanitary condition. No member shall be discharged for refusing to work with unsanitary materials or on a ladder or scaffolding which he considers unsafe.

SEC. 2. Journeymen shall be allowed sufficient time before the hour of 4.30 p. m., or quitting time, for the purpose of placing materials, brushes, etc., where such properly belong.

SEC. 3. All employers to this agreement must have their workmen insured for the protection of the employees in accordance with the workmen's compensation laws of the State of Pennsylvania.

The matter of apprenticeship is gone into quite carefully, the provisions in full being as follows:

ARTICLE X

SECTION 1. Each responsible contractor being a party to this agreement shall have the right to teach his trade to apprentices, and the said apprentices shall serve not less than three consecutive years, as herein prescribed and agreed upon by the Master Painters' Association and District Council No. 1.

SEC. 2. Apprentices shall be under the jurisdiction of District Council No. 1, which has the authority to control them and protect their interests subject to approved indentures entered into with their employers and adopted by District Council No. 1.

SEC. 3. Master painters shall not be entitled to employ an apprentice without first making application to the Master Painters' Association and District Council No. 1 and have the approval of the joint conference committee.

SEC. 4. Any boy engaging to learn the trade of painting, paper hanging, decorating, or other allied branches of our trade, must be over the age of 16 years and under the age of 21 years at the time of his registration, unless special dispensation is granted by District Council No. 1.

SEC. 5. Contractors taking an apprentice shall keep him steadily employed; failing to do so, he shall pay him the same as though he had been regularly employed by him.

SEC. 6. A contractor entitled to an apprentice, the said apprentice shall be under probation for 30 days, and if the apprentice shall be satisfactory he shall be registered by the Master Painters' Association and indentured by District Council No. 1.

SEC. 7. The rate of wages for an apprentice at the time of indenture shall in no case be less than \$15 per week for the first year, \$22 per week for the second year, and \$27 per week for the third year.

SEC. 8. An apprentice shall work for no other contractor than the one to whom he is apprenticed during the time of apprenticeship, except when an employer fails or retires from business, then the District Council No. 1 shall place the boy in another shop.

[1290]

SEC. 9. No contractor shall be entitled to an apprentice unless he employs at least five men for at least six months in the year, nor shall he be entitled to the second apprentice unless he employs on an average of 12 men a year.

SEC. 10. No apprentice working on jobs shall work more than 8 hours a day, Saturday 4 hours. Where apprentice has worked on job until noon Saturday he shall not be required to work in the shop that Saturday afternoon.

SEC. 11. No apprentice shall be permitted to take charge of any job, nor shall any apprentice be allowed to work on any job unless there is at least one journeyman employed on the same job. Jobbing work excepted.

SEC. 12. No contractor shall be allowed an apprentice unless he has been contracting for a period of one year.

Printing, Newspaper—New York City

AN AGREEMENT has recently been made between the Publishers' Association of New York City and Typographical Union No. 6, effective for two years and a half from January 1, 1924. The union had demanded a day of six hours but compromised on seven and a half. Under the terms of the new agreement the printers receive an increase of \$3 a week for the first six months of 1924, an additional dollar during the second six months, and another dollar on and after January 1, 1925, thus making the rates January 1, 1924, as follows: Day shifts \$58 a week; night shifts \$61 a week; third shifts \$64 a week; machine tenders, 1 to 12 machines, \$55.75; machine tenders, 13 or more machines, \$58.25.

The other provisions of the new agreement are essentially the same as those of the old agreement.

Railroads—Board of Labor Adjustment—Boston & Maine Railroad

THE Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, on March 1, 1924, signed an agreement with the Boston & Maine Railroad, creating an "Office and Station Service Board of Labor Adjustment" along the lines of the agreement creating the "Station Service Board of Adjustment" on the New York, New Haven & Hartford Railroad. (See MONTHLY LABOR REVIEW, February, 1924, pp. 132-134.) The New Haven board was created to hear, on appeal, cases that failed to be settled by division officials, with reference to the Railroad Labor Board by the Board of Adjustment in case of its inability to settle the matter in dispute. The board created by the agreement under review hears appeals from the general manager's office, reference being provided to the Railroad Labor Board or other arbitrators in case of the board's inability to settle the matter.

The text of the agreement follows:

Whereas it is our desire to cooperate in the disposition of certain grievances and disputes which arise in the normal course of events, between ourselves and without reference to any outside agency, it is, therefore, agreed:

1. There shall be created as soon as practicable, and not later than April 1, 1924, a board to be known as "Office and Station Service Board of Labor Adjustment, Boston & Maine Railroad," hereinafter referred to as the board.

2. The board shall be composed of six members; three to be appointed by the organization and three by the railroad, for a term of one year, subject to reappointment.

3. Should a vacancy occur on the board, such vacancy shall immediately be filled by the same authority as made the original selection.

4. The board shall immediately upon appointment of its members choose a chairman and a vice chairman and one or the other shall preside at all meetings of the board.

[1291]

5. The chairman and vice chairman shall serve for periods of six months and representatives of the organization and of the railroad shall alternate in filling the positions. When the chairman is a representative of the railroad the vice chairman shall be a representative of the organization and vice versa.

6. All meetings of the board shall be held at Boston, Mass., except when a majority shall decide the case to be heard, or some other reason in their judgment warrants meeting elsewhere.

7. Decisions rendered by the board shall be binding upon both parties and are not subject to appeal to the United States Railroad Labor Board or any other tribunal.

8. A majority vote of the full board will be necessary for a decision.

9. Cases not decided in accordance with Rule 8 at one session may be placed on the table for reconsideration at the next succeeding session. If no decision is reached either party may, if desired, call upon the other to join in submission of the dispute to the United States Railroad Labor Board, which request will be promptly complied with; or, by unanimous agreement of the board, the case may be referred to any other arbitrator or arbitrators, and the decision of such arbitrator or arbitrators when made shall be final and binding upon both parties.

10. Disputes arising will be handled as heretofore up to and including the general manager's office. If decision given by that office is not satisfactory to the organization, the case may be appealed to the board.

(a) It will be proper for the board to receive and handle disputes growing out of personal grievances or out of the interpretation or application of schedule or practices now in effect or hereafter established.

(b) No dispute of the nature outlined in preceding paragraph will be handled which has arisen out of occurrences prior to August 10th, 1922, unless now pending.

(c) All disputes arising out of proposed changes in rates of pay, rules or working conditions are specifically excluded from the jurisdiction of the board, unless such question is expressly, jointly referred to the board for decision.

11. The board shall have authority to make its own regulations as to when they shall meet, what records they shall keep and all other matters pertaining to their activities, except such as are specifically covered by this agreement.

12. The organization and the railroad, respectively, will compensate its own appointed representatives on the board and personal expenses, if any, will be cared for in the same manner. Any general expenses which may be incurred will be divided between the organization and railroad on a 50-50 basis.

13. In each case presented to the board an effort will be made to present a joint concrete statement of facts, but the board is authorized to require information in addition to the statement of facts and may call for additional evidence, either oral or written, from either side. Either party shall be entitled to an oral hearing before the board upon request.

14. This agreement shall become effective as specified in section 1 hereof and shall remain in full force and effect until canceled by thirty (30) days' notice, given by either party to the other.

15. This agreement can only be changed or modified by mutual consent given in writing, the change or modification to be signed in the same manner as this agreement is signed.

Railroads—Conductors and Trainmen

THE Order of Railway Conductors and the Brotherhood of Railroad Trainmen have concluded negotiations with the Association of Western Railways representing 43 carriers and including 85,000 employees. The roads agreeing to the settlement are as follows:

Atchison, Topeka & Santa Fe Railway Co.
Belt Railway Co. of Chicago.
Chicago & Eastern Illinois Railway Co.
Chicago and Western Indiana Railroad Co.
Chicago and North Western Railway Co.
Chicago, Burlington & Quincy Railroad Co.
Chicago Great Western Railroad Co.
Chicago, Milwaukee & St. Paul Railway Co.
Chicago, Rock Island & Pacific Railway Co.
Chicago, St. Paul, Minneapolis & Omaha Railway Co.

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Colorado & Southern Railway Co.
 Davenport, Rock Island & Northwestern Railway Co.
 Des Moines Union Railway Co.
 El Paso & Southwestern System.
 Fort Worth & Denver City Railway Co.
 Great Northern Railway Co.
 Gulf Coast Lines.
 Houston Belt & Terminal Railway Co.
 Illinois Central Railroad Co.
 Kansas City Southern Railway Co.
 Kansas City Terminal Railway Co.
 Minneapolis, St. Paul & Sault Ste. Marie Railway Co.
 Minnesota Transfer Railway Co.
 Missouri, Kansas & Texas Railway Co.
 Missouri Pacific Railroad Co.
 Northern Pacific Railway Co.
 Peoria & Pekin Union Railway Co.
 St. Joseph Belt Railway Co.
 St. Paul Bridge & Terminal Railway Co.
 St. Louis-San Francisco Railway Co.
 St. Louis Southwestern Railway Co.
 San Antonio & Aransas Pass Railway Co.
 Southern Pacific Lines—Texas & Louisiana.
 Spokane, Portland & Seattle Railway Co.
 Terminal Railroad Association of St. Louis.
 Texas & Pacific Railway Co.
 Trans-Mississippi Terminal Railroad Co.
 Trinity & Brazos Valley Railway Co.
 Union Pacific Railroad Co.
 Union Railway Co. (Memphis, Tenn.)
 Union Stock Yards Co. of Omaha (Ltd.).
 Wabash Railway Co.
 Western Pacific Railroad Co.

The agreement provides for increases in pay from April 1, 1924, and changes in rules to be effective May 1. The increases for passenger service are 30 cents per day, 2 mills per mile, \$9 per month; for freight service, 36 cents per day, 3.6 mills per mile; and for yard service, 32 cents per day.

The same money increases shall apply to milk, mixed and miscellaneous train service as are applied to the service in which they are now classified. Where there is a separate rate for milk, mixed or miscellaneous classes of service, it shall be increased in the same amount as is applied to the service in which now classified.

Passenger service

Effective May 1, 1924, the following additional section of article in different schedules corresponding with Article IV of Supplement No. 25 to General Order No. 27 will apply.

When the monthly earnings of regularly assigned passenger trainmen from daily guarantees, mileage, overtime, and other rules do not produce the following average amounts per day, they will be paid for each day service is performed:

	Per day
Conductors.....	\$7. 00
Assistant conductors or ticket collectors.....	5. 80
Baggagemen handling both express and dynamo.....	5. 84
Baggagemen operating dynamo.....	5. 50
Baggagemen handling express.....	5. 50
Baggagemen.....	5. 16
Flagmen and brakemen.....	5. 00

When extra men fill vacancies in regular positions, they take conditions of the regular positions. Service performed by extra men not filling place of regular men will be paid not less than the daily earning minima for each day service is performed.

It is understood that disposition will be made of rules in the various schedules as indicated herein.

1. Substitute 20 miles per hour speed basis rule for rules in agreements which provide that overtime will be paid on a higher speed basis, on schedule of trains when one hour late, etc.; provided that roads paying actual miles will adopt the standard basic mileage day rule; that is, will pay for not less than 150 miles, computed from the beginning of the day as named by the company.

NOTE.—It is understood that the foregoing includes all standard provisions (as provided for by Federal wage supplements) governing speed basis for overtime and minimum day.

2. Under the operation of the 8 within 10 hour rule, where excessive overtime earnings accrue, or where the carriers are penalized by limitation as to the number of trips which may be made in a day's assignment, or where present rule is inequitable to conductors and trainmen, the management and the committees shall enter into negotiations with a view of eliminating such inequalities.

3. The mileage and daily rates established by this agreement applied to 150 miles divided by 8 will be overtime rate, preserving existing higher overtime rates.

4. The managements and committees shall enter into negotiations with a view of eliminating tabulations of passenger assignments and not restrict the managements' rights to rearrange service to the extent provided for in Supplements Nos. 16 and 25; negotiations shall also include rearrangement of combination of assignments to equalize mileage on equitable basis, provided there shall be no absorption of constructive mileage or reduction of crews as of January 1, 1919, except where specifically agreed upon.

Freight service

1. Men in pool or irregular freight service may be called to make short trips or turn-arounds with the understanding that one or more turn-around trips may be started out of the same terminal and paid actual miles, with minimum of 100 miles for a day; provided: (1) That the mileage of all the trips does not exceed 100 miles, and (2) that men shall not be required to begin work on a succeeding trip out of initial terminal after having been on duty 8 consecutive hours, except as a new day, subject to the first-in-first-out rule or practice.

2. (a) When a crew is required to make an emergency side or lap back trip between their terminals within the scope of Supplement 25, miles made will be added to the mileage of the regular trip and paid for on continuous basis.

(b) Short trips from a terminal to an outlying point and return, from an outlying point to a terminal and return, or from an intermediate point to another intermediate point and return, on account of engine failure, running for fuel or water, running for wreck car or carmen, or on account of a derailment, when such conditions arise in connection with their own train, will be paid continuous time or mileage.

3. Where excessive overtime earnings accrue in branch line turn-around service the managements and committees should negotiate thereon with a view of establishing greater equity.

4. Existing schedule provisions limiting double heading of trains and use of helpers or pushers will be modified to provide—

(a) With trains of over 40 cars, exclusive of cabooses, double-heading is prohibited, except as hereinafter stated:

(b) Double-headers may be run on any district provided the rating of largest engine handling the train is not exceeded.

(c) In case of an accident to an engine, consolidation may be effected with another train and consolidated train brought into terminal as a double-header, if practicable.

(d) It is recognized that the exigencies of the business may require additional helper service to that provided for, in which event the matter shall be settled by negotiations between the managements and committees, and provisions for pusher or helper service may be made by managements and committees for pusher or helper engines on any district to maintain the tonnage intact over grades.

5. Schedule provisions limiting the amount of tonnage which may be hauled by one engine are eliminated.

Yard service

1. Exceptions to starting-time rules may be agreed upon by the managements and general committees to cover local service requirements.

2. On roads where hardships are caused by rules in yard schedules providing the pay of yardmen shall continue until they reach the point at which they started work, the managements and the committees should jointly negotiate a rule that is equitable to afford relief in such yards or terminals.

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General

1. Managements and committees shall negotiate to determine whether there are unnecessary employees or service.

2. In order that there be more nearly uniform deadhead rules in western territory, committees and managements should negotiate a rule to the effect that deadheading due to the voluntary exercise of seniority will not be paid for.

3. This agreement applies on all railroads parties to these negotiations, except that:

(a) The individual carrier may adopt or reject any rule or rule revision, but may not reject the increased rates, subject to paragraph (b).

(b) The conductors or trainmen as a class on an individual road may elect to keep rates and rules they heretofore had in their entirety in lieu of rates and such of the items herein provided as the individual carriers may elect to adopt.

4. In event management and committee on any railroad, party hereto, fails within 30 days to arrive at an agreement on any of the items contained herein, including negotiating equitable rules referred to, the disagreement may be referred by either party to a commission consisting of two representatives of the carriers and one each of the Order of Railway Conductors and Brotherhood of Railroad Trainmen selected from present conferees with full power to agree and whose decision shall be final.

Statement setting forth disagreement should be mailed not later than May 28, 1924, to the Commission for Carriers and Order of Railway Conductors and Brotherhood of Railroad Trainmen, 1864 Transportation Building, 608 South Dearborn Street, Chicago, Ill. Preferably the statement should be sent in jointly rather than ex parte, and in either event should show—

(a) Detailed statement of facts.

(b) Proposition submitted by each party.

(c) Argument in support of final proposition submitted by respective parties.

5. No changes will be made in schedules except as specifically provided herein, unless by mutual agreement. All to remain in effect until December 31, 1925, and thereafter subject to the usual 30 days' notice of change.

Railroads—Locomotive Engineers and Firemen—Wage Increases

THE following roads have recently granted increases in wages to their engine crews of from 5 to 6 per cent:

Arkansas & Louisiana Missouri Railway Co.

Atlantic Coast Line Railroad Co.

Baltimore & Ohio Railroad Co.

Bessemer & Lake Erie Railroad Co.

Boston & Albany Railroad Co.

Buffalo Creek Railroad Co.

Central New England Railway Co.

Central of Georgia Railway Co.

Central Railroad Co. of New Jersey.

Chesapeake & Ohio Railway Co.

Chicago Junction Railway Co.

Chicago River & Indiana Railroad Co.

Cincinnati Northern Railroad Co.

Cleveland, Cincinnati, Chicago & St. Louis Railway Co.

Delaware, Lackawanna & Western Railroad Co.

Elgin, Joliet & Eastern Railway Co.

Erie Railroad Co.

Evansville, Indianapolis & Terre Haute Railway Co.

Georgia Southern & Florida Railway Co.

Hocking Valley Railway Co.

Indiana Harbor Belt Railroad Co.

Kanawha & Michigan Railway Co.

Kanawha & West Virginia Railroad Co.

Lake Erie & Eastern Railroad Co.

Lakeside & Marblehead Railroad Co.

Lehigh Valley Railroad Co.

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Louisville & Jeffersonville Bridge & Railroad Co.
 Louisville & Nashville Railroad Co.
 Michigan Central Railroad Co.
 Mobile & Ohio Railroad Co.
 Muncie Belt Railway Co.
 Nashville, Chattanooga & St. Louis Railway.
 New York Central Railroad Co.
 New York, Chicago & St. Louis Railroad Co.
 New York, New Haven & Hartford Railroad Co.
 New York, Ontario & Western Railway Co.
 Norfolk Southern Railroad Co.
 Pennsylvania Railroad Co.
 Peoria & Eastern Railway Co.
 Philadelphia & Reading Railway Co.
 Pittsburgh & Lake Erie Railroad Co.
 Pittsburgh & West Virginia Railway Co.
 Rutland Railroad Co.
 Seaboard Air Line Railway Co.
 Southern Railway Co.
 Staten Island Railway Co.
 Toledo & Ohio Central Railway Co.
 Toledo, St. Louis & Western Railroad Co.
 Washington Terminal Co.
 Wheeling & Lake Erie Railway Co.
 Zanesville & Western Railway Co.

Street Railways—Atlanta

A DECISION was rendered by a board of arbitration, March 24, 1924, relative to the wages for 1924 of the members of the Amalgamated Association of Street and Electric Railway Employees, Division 732, of Atlanta, and their employer, the Georgia Railway & Power Co. At the hearings before the board the employees requested an increase in wages of 25 per cent, contending "that existing scales do not afford a living wage," while the company stated that it was unable to grant any increase in wages "because of the insufficiency of its revenues under existing fares, and that the wages it now pays are fairly compensatory for the services rendered by its employees, and, in fact, do constitute a living wage."

The board found that—

The evidence before the board is that for 1923 approximately 42 per cent of the gross revenue of the railway department of the company for the year 1923 was used to meet the pay rolls of that department under existing wage scales and salaries: 37½ per cent to meet other necessary expenses, purchase supplies and material, and 8½ per cent to pay tax charges, making in all approximately 88 per cent to meet expenses absolutely necessary in rendering service. Out of the remaining 12 per cent, interest on bonds, rentals and replacement of property worn out in service, and contingencies must be cared for.

After considering the contentions of both sides, the rights of the public, and the general welfare of the community, the board granted a slight increase, which, by agreement between the company and its employees, was adopted as the rate for 1924.

The new hourly rates for 1923 and 1924 are as follows:

Motormen and conductors:	1923	1924
First 9 months.....	(1)	\$0. 43
Second 9 months.....	(1)	. 48
Thereafter.....	(1)	. 51

¹ The periods in 1923 were one year and two years, during which the wages were 40 cents and 45 cents, respectively, with 48 cents thereafter.

	1923	1924
Welder helpers.....	\$0. 44	\$0. 47
Grinder helpers.....	. 35	. 38
	. 40	. 43
	. 44	. 47
Bridge carpenters.....	. 45½	. 48½
	. 48½	. 51½
Car-barn inspectors in service January 1, 1922:		
First year.....	. 44	. 47
Second year.....	. 46	. 49
Third year.....	. 48	. 51
Fourth year.....	. 49	. 52
Thereafter.....	. 50	. 53
Car-barn inspectors employed after January 1, 1922:		
First year.....	. 40	. 43
Second year.....	. 42	. 45
Third year.....	. 44	. 47
Fourth year.....	. 47	. 50
Thereafter.....	. 50	. 53
Motor and truck repairmen in service January 1, 1922:		
First year.....	. 44	. 47
Second year.....	. 46	. 49
Third year.....	. 48	. 51
Fourth year.....	. 49	. 52
Fifth year.....	. 50	. 53
Thereafter.....	. 52	. 55
Motor and truck repairmen employed after January 1, 1922:		
First year.....	. 40	. 43
Second year.....	. 42	. 45
Third year.....	. 44	. 47
Fourth year.....	. 46	. 49
Fifth year.....	. 49	. 52
Thereafter.....	. 52	. 55
	. 44	. 47
	. 50	. 53
Carpenters.....	. 65	. 68
	. 70	. 73
	. 75	. 78
	Per week	Per week
Track, stock yard, quarry, and bridge foremen.....	\$36. 00	\$39. 60
Subforemen.....	31. 00	34. 10
First-class welder and grinder foremen.....	33. 50	36. 85
Second-class welder and grinder foremen.....	30. 50	33. 55
Work-car motormen.....	33. 50	36. 85
Truck drivers.....	30. 00	33. 00

EMPLOYMENT AND UNEMPLOYMENT

Employment in Selected Industries in April, 1924

EMPLOYMENT in manufacturing industries in the United States decreased 2.1 per cent in April; pay-roll totals decreased 2.5 per cent; and per capita earnings decreased 0.4 per cent. These unweighted figures are presented by the United States Department of Labor through the Bureau of Labor Statistics and are based on reports from 8,422 establishments in 52 industries covering 2,706,709 employees whose total earnings during one week in April were \$71,966,302. The same establishments in March reported 2,765,953 employees and total pay rolls of \$73,834,536.

Comparison of Employment in April, 1924, and March, 1924

COMPARING April and March reports from identical establishments, increases in employment are shown in 10 of the 52 industries and increases in pay-roll totals in 11 industries.

The brick, tile, and terra cotta and ice cream industries were the only industries showing increases of considerable size. The first named gained 8.5 per cent in employment and 10.4 per cent in earnings, and the last gained 7.7 per cent in employment and 7 per cent in earnings, both of these industries having begun their active season. The approach of the building season had its effect upon the sawmill, millwork, and cement industries, all of which gained both in employment and earnings, as did steam-railroad car shops and newspaper printing establishments. The steam fittings industry gained in employment, but lost slightly in pay-roll totals.

The men's clothing industry showed the greatest loss in employment and in employees' earnings in April, the percentages being 11.4 and 16.6 respectively. Other industries showing large losses in both items were confectionery, agricultural implements, carpets, boots and shoes, woolen and worsted goods, and stamped and enameled ware. The fertilizer industry having closed its shipping season dropped 6.4 per cent of its employees. The two tobacco industries showed large decreases in pay-roll totals, with smaller decreases in employment.

The stone, clay, and glass group of industries and the lumber group were the only groups which showed increased employment and earnings. The first gained over 2 per cent in both items and the last less than 1 per cent in both items. The leather and stamped ware groups lost 5.2 per cent each in employment, the textile group lost 4.4 per cent, the food group 3.8 per cent, the tobacco group 3.3 per cent, and the vehicle group 2.6 per cent. The leather group decreased 8.9 per cent in pay-roll totals, the tobacco industries 8.4 per cent, and the textile group of industries decreased 6.8 per cent.

For convenient reference the latest figures available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are given at the foot of the first and second tables.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN MARCH AND APRIL, 1924

Industry	Es- tab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		March, 1924	April, 1924		March, 1924	April, 1924	
Food and kindred products	921	179,140	172,402	-3.8	\$4,469,625	\$4,288,529	-4.1
Slaughtering and meat packing	84	85,357	81,512	-4.5	2,098,284	1,981,987	-5.5
Confectionery	135	17,255	15,704	-9.0	321,854	291,097	-9.6
Ice cream	85	5,060	5,452	+7.7	158,516	169,597	+7.0
Flour	288	15,062	14,559	-3.3	399,049	376,267	-5.7
Baking	315	45,831	44,866	-2.1	1,170,062	1,156,939	-1.1
Sugar refining, cane	14	10,575	10,309	-2.5	321,860	312,642	-2.9
Textiles and their products	1,570	552,348	527,858	-4.4	11,059,527	10,303,723	-6.8
Cotton goods	305	184,993	177,280	-4.2	3,040,565	2,869,682	-5.6
Hosiery and knit goods	234	77,641	76,305	-1.7	1,382,471	1,352,199	-2.2
Silk goods	202	54,015	52,294	-3.2	1,129,791	1,093,264	-3.2
Woolen and worsted goods	179	71,754	67,976	-5.3	1,624,970	1,493,981	-8.1
Carpets	24	21,971	20,742	-5.6	633,515	555,870	-12.3
Dyeing and finishing textiles	73	27,696	27,476	-0.8	640,199	632,520	-1.2
Clothing, men's	221	58,841	52,105	-11.4	1,466,272	1,223,605	-16.6
Shirts and collars	96	25,866	25,084	-3.0	390,469	382,944	-1.9
Clothing, women's	158	16,785	16,104	-4.1	460,058	417,305	-9.3
Millinery and lace goods	78	12,786	12,492	-2.3	291,217	282,353	-3.0
Iron and steel and their products	1,442	592,589	588,623	-0.7	17,756,780	17,439,833	-1.8
Iron and steel	209	280,553	278,911	-0.6	8,715,398	8,487,343	-2.6
Structural ironwork	158	19,820	19,629	-1.0	545,935	550,920	+0.9
Foundry and machine-shop products	620	171,152	169,471	-1.0	4,993,503	4,969,001	-0.5
Hardware	55	36,523	36,519	-1	929,360	901,592	-3.0
Machine tools	185	25,776	25,057	-2.8	748,135	732,126	-2.1
Steam fittings and steam and hot-water heating apparatus	130	41,125	41,902	+1.9	1,283,673	1,281,037	-0.2
Stoves	85	17,640	17,134	-2.9	540,776	517,814	-4.2
Lumber and its products	1,066	203,095	204,289	+0.6	4,473,973	4,509,798	+0.8
Lumber, sawmills	450	115,689	117,458	+1.5	2,426,801	2,462,696	+1.5
Lumber, millwork	254	32,675	33,159	+1.5	797,709	817,104	+2.4
Furniture	362	54,731	53,672	-1.9	1,249,463	1,229,998	-1.6
Leather and its products	343	123,177	116,730	-5.2	2,838,682	2,587,172	-8.9
Leather	128	26,796	25,737	-4.0	681,600	645,422	-5.3
Boots and shoes	215	96,381	90,993	-5.6	2,157,073	1,941,750	-10.0
Paper and printing	769	114,125	143,596	+0.4	4,485,935	4,477,066	-0.2
Paper and pulp	176	50,237	50,125	-0.2	1,356,832	1,335,463	-1.6
Paper boxes	154	16,767	16,548	-1.3	354,641	346,585	-2.3
Printing, book and job	251	32,271	31,629	-2.0	1,071,706	1,063,290	-0.8
Printing, newspaper	188	44,850	45,294	+1.0	1,702,756	1,731,728	+1.7
Chemicals and allied products	254	72,606	71,897	-1.0	2,071,818	2,050,509	-1.0
Chemicals	91	18,954	18,665	-1.5	509,991	501,200	-1.7
Fertilizers	111	11,461	10,723	-6.4	200,805	195,762	-2.5
Petroleum refining	52	42,191	42,509	+0.8	1,361,022	1,353,547	-0.5
Stone, clay, and glass products	626	105,181	107,665	+2.4	2,788,184	2,859,782	+2.6
Cement	79	24,162	24,585	+1.8	688,417	708,747	+3.0
Brick, tile, and terra cotta	350	26,323	28,573	+8.5	666,052	735,455	+10.4
Pottery	51	12,728	12,804	+0.6	356,792	356,149	-0.2
Glass	146	41,968	41,703	-0.6	1,076,923	1,059,431	-1.6
Metal products, other than iron and steel	42	14,969	14,194	-5.2	372,452	350,911	-5.8
Stamped and enameled ware	42	14,969	14,194	-5.2	372,452	350,911	-5.8
Tobacco products	212	39,976	38,675	-3.3	728,088	666,891	-8.4
Chewing and smoking tobacco	34	7,908	7,784	-1.6	131,071	116,438	-11.2
Cigars and cigarettes	178	32,068	30,891	-3.7	597,017	550,453	-7.8
Vehicles for land transportation	777	504,391	491,262	-2.6	16,154,571	15,902,316	-1.6
Automobiles	227	339,123	324,797	-4.2	11,376,482	10,995,835	-3.3
Carriages and wagons	41	3,021	2,977	-1.5	72,678	72,937	+0.4
Car building and repairing, electric-railroad	188	16,519	16,440	-0.5	\$490,178	\$482,435	-1.6
Car building and repairing, steam-railroad	321	145,728	147,048	+0.9	4,215,233	4,351,109	+3.2
Miscellaneous industries	400	234,356	229,518	-2.1	6,634,901	6,529,772	-1.6
Agricultural implements	109	26,531	24,695	-6.9	726,675	668,704	-8.0
Electrical machinery, apparatus and supplies	134	107,802	106,522	-1.2	3,055,227	3,017,517	-1.2
Pianos and organs	35	8,410	8,068	-4.1	244,295	233,710	-4.3
Rubber boots and shoes	11	16,945	16,254	-4.1	389,299	369,425	-5.1
Automobile tires	75	48,501	48,406	-0.2	1,477,061	1,490,010	+0.9
Shipbuilding, steel	36	26,167	25,573	-2.3	742,344	750,406	+1.1
Total	8,422	2,765,953	2,706,709	-2.1	73,834,536	71,966,802	-2.5
Railroads, Class I	{ Feb. 15, 1924	1,737,029			¹ \$223,859,559		
	{ Mar. 15, 1924	1,743,983		+0.4	² 234,345,120		-4.7

¹ Less than one-tenth of 1 per cent.² Amount of pay roll for one month.

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Comparison of Employment in April, 1924, and April, 1923

REPORTS are available from 5,772 establishments in 46 industries for a comparison of employment and earnings between April, 1924, and April, 1923. These reports, from identical establishments in the two years, show a decrease of 5.2 per cent in employment in 1924, a decrease of 2 per cent in pay-roll totals, and an increase of 3.4 per cent in per capita earnings. The total number of employees covered in April, 1924, was 2,045,189, and their earnings amounted to \$54,939,432, while the number of employees in April, 1923, was 2,158,055, and their earnings amounted to \$56,043,735.

There were gains in employment in April, 1924, in only 13 of the 46 industries and gains in the earnings of employees in 20 industries. For the third month in succession the pottery industry shows very large gains in the 12-month period both in employment and earnings, the April, 1924, increases being 14.2 per cent and 21.2 per cent, respectively. The iron and steel industry gained 8.7 per cent in number of employees and 17.5 per cent in earnings. Among other industries which gained both in numbers of employees and pay-roll totals were cement, sugar refining, electrical goods, automobiles, book and job and newspaper printing, and sawmills and millwork. These increases however were all considerably smaller than those in the pottery and iron and steel industries.

The decreases in employment in the 12-month period were exceptionally large in a majority of the 33 industries which lost in employment, as shown in the following list: Steam-railroad car shops, 19.7 per cent; agricultural implements, 18.2 per cent; foundry and machine shops, 18 per cent; men's clothing, 16.5 per cent; automobile tires, 15.9 per cent; cotton goods, 14.7 per cent; carriages, 13.7 per cent; leather, 13.1 per cent; shipbuilding, 12.4 per cent; shirts and collars, 12.2 per cent; sugar refining, 11.8 per cent; woolen goods, 11.6 per cent; stoves 11.4 per cent; millinery and lace goods, 10.8 per cent; and boots and shoes, 10.3 per cent. In 6 of these industries the decrease in pay-roll totals was even greater than the loss in employment, the greatest decreases being 22.5 per cent in men's clothing, 20.7 per cent in cotton goods, and 19.6 per cent in automobile tires.

The stone, clay, and glass group of industries was the only group showing an increase of employment (1.6 per cent) in April, 1924, as compared with April, 1923. The textile and leather groups showed a decrease of 11 per cent each, and the other 9 groups showed decreases ranging from 10 per cent to less than 1 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN APRIL, 1923, AND APRIL, 1924

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		April, 1923	April, 1924		April, 1923	April, 1924	
Food and kindred products	613	129,307	127,305	-1.5	\$3,087,406	\$3,205,151	+3.8
Slaughtering and meat packing.....	77	78,597	76,361	-2.8	1,818,581	1,854,914	+2.0
Confectionery.....	44	1,718	1,556	-9.4	27,603	25,813	-6.5
Flour.....	257	13,352	12,686	-5.0	331,184	329,940	-0.4
Baking.....	229	30,859	32,483	+5.3	778,407	871,428	+12.0
Sugar refining, cane.....	6	4,781	4,219	-11.8	131,631	123,056	-6.5
Textiles and their products	1,226	484,771	431,010	-11.1	9,807,065	8,494,489	-13.4
Cotton goods.....	246	165,812	141,500	-14.7	2,917,738	2,313,340	-20.7
Hosiery and knit goods.....	197	62,815	60,344	-3.9	1,101,631	1,060,715	-3.7
Silk goods.....	164	50,716	46,854	-7.6	1,043,758	1,000,539	-4.1
Woolen and worsted goods.....	146	60,198	53,218	-11.6	1,359,426	1,184,049	-12.9
Carpets.....	23	20,243	19,646	-2.9	521,930	522,311	+0.1
Dyeing and finishing textiles.....	58	26,594	24,500	-7.9	619,265	555,625	-10.3
Clothing, men's.....	154	50,742	42,388	-16.5	1,312,138	1,016,653	-22.5
Shirts and collars.....	81	25,261	22,188	-12.2	386,850	335,392	-13.3
Clothing, women's.....	105	12,518	11,566	-7.6	337,245	309,168	-8.3
Millinery and lace goods.....	52	9,872	8,806	-10.8	207,084	196,697	-5.0
Iron and steel and their products	679	389,011	381,850	-1.8	10,962,881	11,319,592	+3.3
Iron and steel.....	164	216,542	235,287	+8.7	6,003,560	7,052,586	+17.5
Foundry and machine-shop prod- ucts.....	410	134,814	110,552	-18.0	4,018,058	3,306,428	-17.7
Hardware.....	30	21,640	21,827	+0.9	498,355	546,786	+9.7
Stoves.....	75	16,015	14,184	-11.4	442,908	413,792	-6.6
Lumber and its products	629	125,541	123,985	-1.2	2,707,307	2,839,012	+4.9
Lumber, sawmills.....	216	62,362	62,621	+0.4	1,218,393	1,332,905	+9.4
Lumber, millwork.....	165	24,688	24,748	+0.2	602,749	637,254	+5.7
Furniture.....	248	38,493	36,616	-4.9	886,165	868,853	-2.0
Leather and its products	294	119,463	106,362	-11.0	2,763,892	2,354,083	-14.8
Leather.....	124	28,902	25,175	-13.1	702,065	630,182	-10.2
Boots and shoes.....	170	90,501	81,187	-10.3	2,061,827	1,723,901	-16.4
Paper and printing	603	124,218	123,896	-0.3	3,706,291	3,906,727	+5.4
Paper and pulp.....	163	50,278	46,504	-7.5	1,268,406	1,239,169	-2.3
Paper boxes.....	138	14,608	14,812	+1.4	298,068	310,036	+4.0
Printing, book and job.....	125	21,361	21,892	+2.5	713,914	755,405	+5.8
Printing, newspapers.....	177	37,971	40,688	+7.2	1,425,903	1,602,117	+12.4
Chemicals and allied products	222	61,111	56,774	-7.1	1,691,575	1,603,272	-5.2
Chemicals.....	84	16,187	16,061	-0.8	411,727	431,532	+4.8
Fertilizers.....	102	9,780	9,973	+2.0	177,779	183,457	+3.2
Petroleum refining.....	36	35,144	30,740	-12.5	1,102,069	988,283	-10.3
Stone, clay, and glass products	518	86,230	87,648	+1.6	2,199,217	2,350,503	+6.9
Cement.....	69	20,774	21,967	+5.7	567,512	622,281	+9.7
Brick, tile, and terra cotta.....	306	22,643	22,556	-0.4	543,822	578,798	+6.4
Pottery.....	47	10,354	11,827	+14.2	273,216	331,026	+21.2
Glass.....	96	32,459	31,298	-3.6	814,667	818,398	+0.5
Metal products, other than iron and steel	33	11,930	10,729	-10.1	279,079	277,413	-0.6
Stamped and enameled ware.....	33	11,930	10,729	-10.1	279,079	277,413	-0.6
Tobacco products	189	32,848	30,905	-5.9	574,188	535,139	-6.8
Chewing and smoking tobacco.....	25	3,137	3,129	-0.3	47,713	50,148	+5.1
Cigars and cigarettes.....	164	29,711	27,776	-6.5	526,475	484,991	-7.9
Vehicles for land transportation	463	401,984	384,920	-4.2	12,870,383	12,832,298	-0.3
Automobiles.....	170	263,366	273,485	+3.8	8,899,723	9,540,073	+7.2
Carriages and wagons.....	32	2,756	2,378	-13.7	64,257	57,319	-10.8
Car building and repairing, steam- railroad.....	261	135,862	109,057	-19.7	3,906,403	3,234,906	-17.2
Miscellaneous industries	303	191,641	179,805	-6.2	5,394,451	5,221,753	-3.2
Agricultural implements.....	72	24,909	20,387	-18.2	647,917	556,954	-14.0
Electrical machinery, apparatus, and supplies.....	120	97,004	99,144	+2.2	2,592,502	2,818,231	+8.7
Pianos and organs.....	26	7,148	7,113	-0.5	204,694	205,883	+0.6
Automobile tires.....	62	47,963	40,354	-15.9	1,530,212	1,230,139	-19.6
Shipbuilding, steel.....	23	14,617	12,807	-12.4	419,126	410,546	-2.0
Total	5,772	2,158,055	2,045,189	-5.2	56,043,735	54,939,432	-2.0
Railroads, Class I ¹		1,800,263			\$248,582,321		
Mar. 15, 1923.....		1,743,983		-3.1	234,345,120		-5.7
Mar. 15, 1924.....							

¹ Amount of pay roll for one month.

Per Capita Earnings

PER CAPITA earnings increased in April as compared with March in 17 of the 52 industries here considered. The increases were all small except those in the fertilizer, shipbuilding, and steam-railroad car building industries, which were 4.2 per cent, 3.4 per cent, and 2.3 per cent, respectively.

The greatest decline in per capita earnings was 9.7 per cent in chewing and smoking tobacco, followed by 7 per cent in carpets, 5.8 per cent in men's clothing, 5.5 per cent in women's clothing, 4.6 per cent in boots and shoes, 4.3 per cent in cigars and cigarettes, and 3 per cent in both woolen and worsted goods and hardware.

Comparing per capita earnings in April, 1924, and April, 1923, increases are shown in 1924 in all but 9 of the 46 industries for which data are available, the steel shipbuilding industry leading with a gain of 11.8 per cent, followed by stamped ware with 10.6 per cent, and sawmills with a gain of 9 per cent.

The greatest falling off in per capita earnings in the yearly comparison was 7.5 per cent in the cotton goods industry. Men's clothing declined 7.3 per cent and the boot and shoe industry 6.8 per cent.

COMPARISON OF PER CAPITA EARNINGS: APRIL, 1924, WITH MARCH, 1924, AND APRIL, 1923

Industry	Per cent of change April, 1924, compared with—		Industry	Per cent of change April, 1924, compared with—	
	March, 1924	April, 1923		March, 1924	April, 1923
Fertilizers.....	+4.2	+1.2	Stamped and enameled ware.....	-0.6	+10.6
Shipbuilding, steel.....	+3.4	+11.8	Ice cream.....	-0.7	.....
Car building and repairing, steam-railroad.....	+2.3	+3.2	Pottery.....	-0.7	+6.1
Structural ironwork.....	+1.9	.....	Millinery and lace goods.....	-0.8	+6.5
Carriages and wagons.....	+1.8	+3.3	Glass.....	-1.0	+4.2
Brick, tile, and terra cotta.....	+1.7	+6.8	Paper boxes.....	-1.0	+2.6
Cement.....	+1.2	+3.7	Rubber boots and shoes.....	-1.0	.....
Printing, book and job.....	+1.2	+3.3	Agricultural implements.....	-1.1	+5.0
Automobile tires.....	+1.1	-4.5	Car building and repairing, electric-railroad.....	-1.1	.....
Shirts and collars.....	+1.1	-1.2	Slaughtering and meat packing.....	-1.1	+5.0
Baking.....	+1.0	+6.4	Petroleum refining.....	-1.3	+2.5
Automobiles.....	+0.9	+3.2	Leather.....	-1.4	+3.3
Lumber, millwork.....	+0.9	+5.5	Paper and pulp.....	-1.4	+5.6
Machine tools.....	+0.7	.....	Stoves.....	-1.4	+5.5
Printing, newspaper.....	+0.7	+4.9	Cotton goods.....	-1.5	-7.5
Foundry and machine-shop products.....	+0.5	+0.4	Iron and steel.....	-2.1	+8.1
Furniture.....	+0.4	+3.1	Steam fittings and steam and hot-water heating apparatus.....	-2.1	.....
Electrical machinery, apparatus, and supplies.....	(1)	+6.4	Flour.....	-2.5	+4.9
Lumber, sawmills.....	(1)	+9.0	Hardware.....	-3.0	+8.8
Silk goods.....	(1)	+3.7	Woolen and worsted goods.....	-3.0	-1.5
Chemicals.....	-0.2	+5.6	Cigars and cigarettes.....	-4.3	-1.5
Pianos and organs.....	-0.3	+1.0	Boots and shoes.....	-4.6	-6.8
Dyeing and finishing textiles.....	-0.4	-2.6	Clothing, women's.....	-5.5	-0.8
Sugar refining, cane.....	-0.4	+6.0	Clothing, men's.....	-5.8	-7.3
Hosiery and knit goods.....	-0.5	+0.2	Carpets.....	-7.0	+3.1
Confectionery.....	-0.6	+3.2	Chewing and smoking tobacco.....	-9.7	+5.4

¹ Decrease of less than one-tenth of 1 per cent.

Time and Capacity Operation

GENERAL plant operation in April dropped to an average of 92 per cent of full time as compared with 94 per cent in March and to an average of 80 per cent of full capacity as compared with 82 per cent in March. These April figures are shown by reports, in percentage terms, from 5,466 establishments. Three per cent of these establishments were idle, 69 per cent of them were operating on a full-time schedule, and 28 per cent on a part-time schedule, while 44 per cent had a full normal number of employees, and 54 per cent were operating with a reduced force.

Stone, clay, and glass products alone of the 12 groups of industries gained in full-time operation, while the same group and tobacco products were the only ones gaining in full-capacity operation. The iron and steel and tobacco groups showed no change in percentage of full time operated, but all groups other than those noted show decreases both in percentage of full-time operation and in percentage of full-capacity operation. The leather group average percentages dropped 6 points and 8 points, respectively, while the decreases in all other instances were from 1 to 4 points.

Reports as to plant operation were received also from 1,190 firms other than the 5,466 noted above, but these were without percentage figures, the statements reading "full" or "part" time, and usually with no report as to capacity. By including these full and part time reports with those of the following table the percentage of establishments working on a full-time schedule is unchanged, being 69 in each instance.

FULL AND PART TIME AND FULL AND PART CAPACITY OPERATION IN MANUFACTURING ESTABLISHMENTS IN APRIL, 1924

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full-time operation in establishments operating	Per cent of establishments operating—		Average per cent of full-capacity operation in establishments operating
	Total number	Per cent idle	Full time	Part time		Full capacity	Part capacity	
Food and kindred products.....	553	2	56	42	84	34	64	73
Slaughtering and meat packing.....	41		63	37	93	46	54	83
Confectionery.....	70	3	53	44	87	26	71	69
Ice cream.....	36	3	78	19	96	22	75	66
Flour.....	206	2	24	74	67	28	70	66
Baking.....	174		88	12	97	45	55	81
Sugar refining, cane.....	6	17	83		100	50	33	85
Textiles and their products.....	975	1	62	87	89	37	61	79
Cotton goods.....	250	3	55	42	84	45	52	80
Hosiery and knit goods.....	141	1	57	42	88	32	67	79
Silk goods.....	136	1	71	29	94	26	74	75
Woolen and worsted goods.....	143		73	27	92	43	57	80
Carpets.....	16		63	37	87	37	63	76
Dyeing and finishing textiles.....	57		37	63	85	18	82	70
Clothing, men's.....	112	2	59	39	86	38	60	80
Shirts and collars.....	40		70	30	89	43	58	83
Clothing, women's.....	47	2	79	19	96	51	47	87
Millinery and lace goods.....	33	3	70	27	93	24	73	76
Iron and steel and their products.....	959	2	74	25	95	32	66	74
Iron and steel.....	100	12	50	38	89	38	50	81
Structural ironwork.....	107		77	23	93	29	71	74
Foundry and machine-shop products.....	437	(1)	72	28	94	31	69	74
Hardware.....	41		83	17	96	44	56	76
Machine tools.....	130	1	89	10	99	20	79	59
Steam fittings and steam and hot-water heating apparatus.....	89	1	89	10	99	52	47	88
Stoves.....	49		55	45	89	27	74	79

¹ Less than one-half of 1 per cent.

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FULL AND PART TIME AND FULL AND PART CAPACITY OPERATION IN MANUFACTURING ESTABLISHMENTS IN APRIL, 1924—Concluded.

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full-time operation in establishments operating	Per cent of establishments operating—		Average per cent of full-capacity operation in establishments operating
	Total number	Per cent idle	Full time	Part time		Full capacity	Part capacity	
Lumber and its products	750	3	74	24	95	58	40	89
Lumber, sawmills.....	327	3	71	25	94	69	28	94
Lumber, millwork.....	148	2	86	11	98	59	39	89
Furniture.....	275	2	70	28	94	44	54	83
Leather and its products	213	2	61	37	87	26	72	69
Leather.....	69	—	81	19	96	22	78	69
Boots and shoes.....	144	3	51	46	83	28	69	69
Paper and printing	446	2	80	18	96	61	37	89
Paper and pulp.....	119	5	71	24	93	64	31	90
Paper boxes.....	86	—	64	36	94	42	58	83
Printing, book and job.....	140	1	84	16	97	48	51	84
Printing, newspapers.....	101	—	99	1	100	92	8	98
Chemicals and allied products	141	2	77	21	91	51	47	79
Chemicals.....	45	4	60	27	91	31	64	70
Fertilizers.....	56	2	66	32	85	38	61	73
Petroleum refining.....	40	—	100	—	100	93	8	97
Stones, clay, and glass products	511	10	68	22	92	48	42	85
Cement.....	72	4	82	14	96	68	28	92
Brick, tile, and terra cotta.....	291	12	64	24	90	45	43	84
Pottery.....	39	—	74	26	98	62	38	93
Glass.....	109	14	68	18	92	38	49	78
Metal products other than iron and steel	28	—	64	36	93	25	75	74
Stamped and enameled ware.....	28	—	64	36	93	25	75	74
Tobacco products	124	9	54	37	87	28	63	74
Chewing and smoking tobacco.....	24	—	58	42	89	21	79	72
Cigars and cigarettes.....	100	11	53	36	87	30	59	74
Vehicles and land transportation	568	1	75	24	95	59	40	85
Automobiles.....	143	2	55	43	91	28	70	72
Carriages and wagons.....	20	5	60	35	93	35	60	68
Car building and repairing, electric-railroad.....	124	—	92	9	98	80	20	94
Car building and repairing, steam-railroad.....	281	1	79	21	96	68	32	89
Miscellaneous industries	218	3	71	26	93	33	64	74
Agricultural implements.....	55	2	67	31	92	24	74	70
Electrical machinery, apparatus, and supplies.....	75	—	80	20	94	44	56	79
Pianos and organs.....	18	—	94	6	97	89	11	94
Rubber boots and shoes.....	6	—	33	67	88	17	83	73
Automobile tires.....	49	8	51	41	91	16	76	73
Shipbuilding, steel.....	15	7	93	—	100	7	87	47
Total	5,466	3	69	28	92	44	54	80

Wage Changes

WAGE-RATE increases were reported by 80 establishments in 27 of 52 industries during the month ending April 15 and wage-rate decreases by 26 establishments in 8 industries. The increases averaged 7.4 per cent and applied to less than 6,000 employees, or one-third of the total employees in the 80 establishments reporting them. The decreases averaged 9.2 per cent and affected about 4,000 employees, or 70 per cent of the employees in the 26 establishments concerned.

As in the last 4 months these wage changes were purely individual to the relatively small establishments making them and had no general significance whatever.

WAGE ADJUSTMENT OCCURRING BETWEEN MARCH 15 AND APRIL 15, 1924

Industry ¹	Establishments		Amount of increase		Employees affected		
	Total number reporting	Number reporting increases	Range	Average	Total number	Per cent of employees	
						In establishments reporting increases	In all establishments reporting
			<i>Per cent.</i>	<i>Per cent.</i>			
Slaughtering and meat packing.....	84	1	6	6.0	189	10	(²)
Ice cream.....	85	1	10	10.0	10	100	(²)
Flour.....	288	2	10-14	12.6	23	50	(²)
Baking.....	315	2	2-10	4.5	26	31	(²)
Cotton goods.....	305	(³)					
Woolen and worsted goods.....	179	(⁴)					
Clothing, women's.....	158	1	5	5.0	47	90	(²)
Millinery and lace goods.....	78	1	5	5.0	97	16	1
Iron and steel.....	209	(⁵)					
Structural ironwork.....	158	2	1-6	5.4	86	10	(²)
Foundry and machine-shop products.....	620	9	5-15	12.4	892	45	1
Machine tools.....	185	7	4-10	5.8	52	18	(²)
Steam fittings and steam and hot-water heating apparatus.....	130	1	10	10.0	42	13	(²)
Stoves.....	85	4	5-10	9.3	23	10	(²)
Lumber, sawmills.....	450	⁶ 2	8-15	8.6	380	62	(²)
Lumber, millwork.....	254	10	3.5-20	7.4	638	40	2
Furniture.....	362	5	2-10	6.2	102	16	(²)
Leather.....	128	(⁷)					
Printing, book and job.....	251	1	10	10.0	18	15	(²)
Printing, newspapers.....	188	10	1-10.7	6.7	633	18	1
Fertilizers.....	111	(⁸)					
Cement.....	79	1	5	5.0	20	10	(²)
Brick, tile, and terra cotta.....	350	5	10-25	18.0	416	73	2
Glass.....	146	1	10	10.0	75	26	(²)
Chewing and smoking tobacco.....	34	1	5	5.0	23	100	(²)
Cigars and cigarettes.....	178	(⁹)					
Automobiles.....	227	3	5-7	5.1	190	14	(²)
Carriages and wagons.....	41	2	10-18.8	10.8	11	38	(²)
Car building and repairing, electric-railroad.....	188	3	6-10	8.3	73	32	(²)
Car building and repairing, steam-railroad.....	321	2	1.8-4	2.8	1,665	98	1
Agricultural implements.....	109	¹⁰ 1	6	6.0	18	28	(²)
Electrical machinery, apparatus, and supplies.....	134	1	10	10.0	10	12	(²)
Pianos and organs.....	35	1	5	5.0	8	17	(²)

¹ Industries for which no wage changes were reported are omitted from this table.

² Less than one-half of 1 per cent.

³ Three establishments decreased the rates of 800 of their 1,375 employees 7.1 per cent.

⁴ One establishment decreased the rates of 135 of its 163 employees 5 per cent.

⁵ One establishment decreased the rates of its 110 employees 10 per cent.

⁶ Also 7 establishments decreased the rates of 1,472 of their 1,690 employees 10.9 per cent.

⁷ Two establishments decreased the rates of 249 of their 336 employees 7.4 per cent.

⁸ One establishment decreased the rates of 138 of its 149 employees 33.3 per cent.

⁹ Ten establishments decreased the rates of 1,039 of their 1,772 employees 7.6 per cent.

¹⁰ Also 1 establishment decreased the rates of 10 of its 65 employees 8 per cent.

Index of Employment in Manufacturing Industries

INDEX numbers for April, 1924, March, 1924, and April, 1923, for each of the 52 manufacturing industries studied by the Bureau of Labor Statistics appear in the following table, together with index numbers for each group of industries and a general index for the 12 groups combined.

INDEX OF EMPLOYMENT IN MANUFACTURING INDUSTRIES—APRIL, 1924, AS COMPARED WITH MARCH, 1924, AND APRIL, 1923

[Monthly average, 1923=100]

Month and year	General index	Food and kindred products							Textiles and their products	
		Group index	Slaughtering and meat packing	Confectionery	Ice cream	Flour	Baking	Sugar refining, cane	Group index	Cotton goods
April 1923	102	95	93	91	78	96	97	120	104	103
March 1924	96	97	96	89	89	96	102	104	96	99
April 1924	95	98	92	81	96	92	100	101	91	86

Month and year	Hosiery and knit goods	Silk goods	Woolen and worsted goods	Carpets	Dyeing and finishing textiles	Clothing, men's	Shirts and collars	Clothing, women's	Millinery and lace goods
April 1923	103	103	102	100	106	100	104	107	108
March 1924	100	98	96	102	88	98	95	104	93
April 1924	99	95	91	96	88	87	92	100	91

Month and year	Group index	Iron and steel	Structural iron-work	Foundry and machine-shop products	Hardware	Machine tools	Steam-fittings and steam and hot-water heating apparatus	Stoves	Group index	Lumber, saw-mills
April 1923	101	99		102	103			104	100	99
March 1924	95	106	92	87	98	94	99	93	97	95
April 1924	94	106	91	86	98	91	101	90	98	97

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INDEX OF EMPLOYMENT IN MANUFACTURING INDUSTRIES—APRIL, 1924, AS COMPARED WITH MARCH, 1924, AND APRIL, 1923—Concluded

Month and year	Lumber and its products— Concluded		Leather and its products			Paper and printing				
	Lumber, mill-work	Furniture	Group index	Leather	Boots and shoes	Group index	Paper and pulp	Paper boxes	Printing, book and job	Printing, newspaper
1923										
April.....	101	101	103	104	103	100	104	97	100	99
1924										
March.....	103	99	97	94	98	101	97	100	103	104
April.....	104	97	92	90	92	101	97	99	101	105

Month and year	Chemicals and allied products				Stone, clay, and glass products				
	Group index	Chemicals	Fertilizers	Petroleum refining	Group index	Cement	Brick, tile, and terra cotta	Pottery	Glass
1923									
April.....	104	99	121	103	101	95	102	97	103
1924									
March.....	103	98	138	93	99	99	94	111	100
April.....	101	97	129	94	102	101	102	112	99

Month and year	Metal products other than iron and steel		Tobacco products			Vehicles for land transportation				
	Group index	Stamped and enameled ware	Group index	Chewing and smoking tobacco	Cigars and cigarettes	Group index	Automobiles	Carrriages and wagons	Car building and repairing, electric railroad	Car building and repairing, steam railroad
1923										
April.....	109	100	100	96	100	100	103	113		98
1924										
March.....	105	105	95	106	94	96	112	95	89	96
April.....	100	100	92	104	91	95	107	93	89	87

Month and year	Miscellaneous industries						
	Group index	Agricultural implements	Electrical machinery, apparatus, and supplies	Pianos and organs	Rubber boots and shoes	Automobile tires	Ship-building, steel
1923							
April.....	107	114	100	98	106	117	107
1924							
March.....	96	96	102	102	80	95	93
April.....	94	89	101	97	77	95	91

The following table and chart show the general index of employment in manufacturing industries from June, 1914, to April, 1924, based on figures published by the Bureau of Labor Statistics:

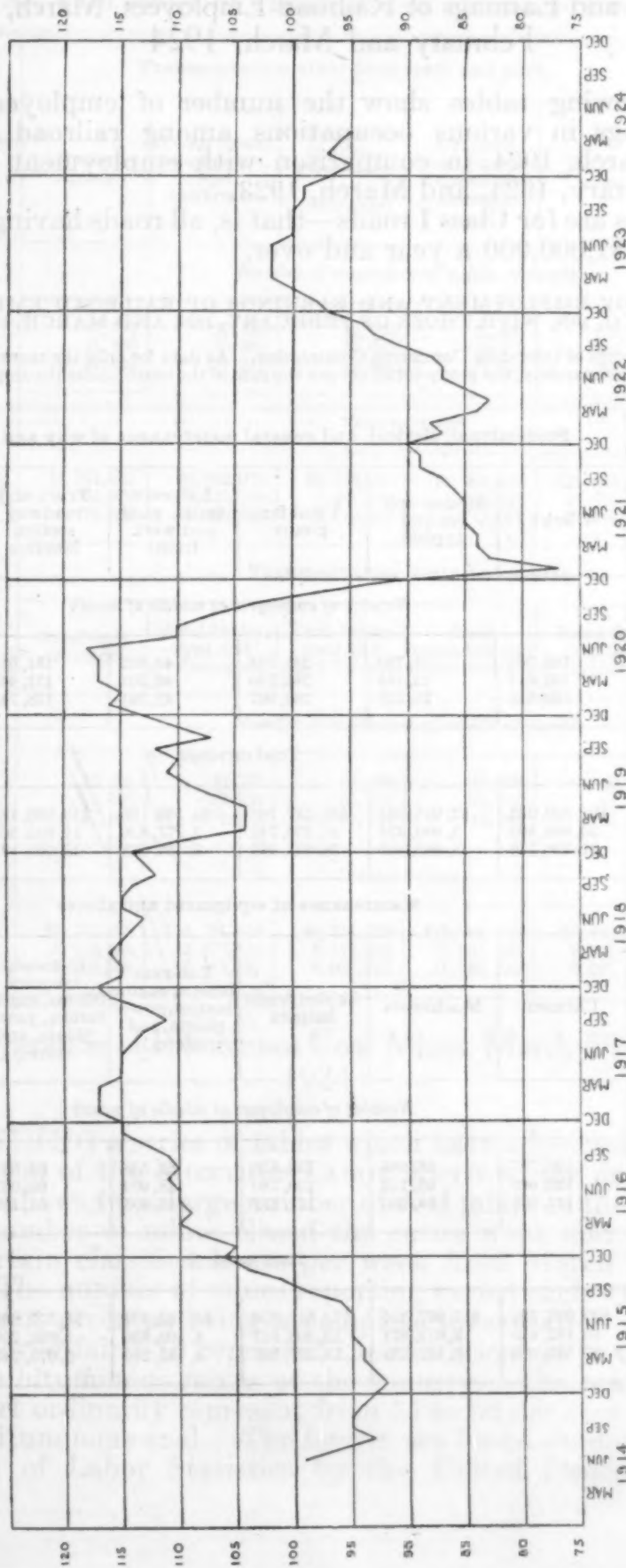
GENERAL INDEX OF EMPLOYMENT IN MANUFACTURING INDUSTRIES, JUNE, 1914, TO APRIL, 1924
[Monthly average, 1923=100]

Month	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
January.....		92	105	117	115	110	116	77	87	98	95
February.....		93	108	117	115	104	115	83	88	100	97
March.....		94	110	117	116	104	117	84	84	102	96
April.....		94	109	115	115	104	117	84	83	102	95
May.....		95	110	115	114	107	117	85	85	102	
June.....	99	96	110	115	113	109	118	85	87	102	
July.....	96	95	111	114	115	111	110	85	87	100	
August.....	93	96	110	113	115	110	110	86	88	100	
September.....	95	99	111	111	114	112	107	87	91	100	
October.....	95	101	113	113	112	107	103	89	93	99	
November.....	94	104	115	116	113	110	97	89	94	99	
December.....	93	106	115	117	114	113	91	90	97	97	

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GENERAL INDEX OF EMPLOYMENT IN MANUFACTURING INDUSTRIES.

JUNE 1914
MONTHLY AVERAGE, 1923=100.
APRIL 1924



101295°—24†—9

[1309]

Employment and Earnings of Railroad Employees, March, 1923, and February and March, 1924

THE following tables show the number of employees and the earnings in various occupations among railroad employees in March, 1924, in comparison with employment and earnings in February, 1924, and March, 1923.

The figures are for Class I roads—that is, all roads having operating revenues of \$1,000,000 a year and over.

COMPARISON OF EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES IN MARCH, 1924, WITH THOSE OF FEBRUARY, 1924, AND MARCH, 1923

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Month and year	Professional, clerical, and general maintenance of way and structures					
	Clerks	Stenographers and typists	Total for group	Laborers (extra gang and work train)	Track and roadway section laborers	Total for group
<i>Number of employees at middle of month</i>						
March, 1923.....	169,301	24,799	281,764	40,632	181,015	342,353
February, 1924.....	169,017	25,184	282,740	40,701	171,444	335,449
March, 1924.....	169,546	25,229	283,597	42,391	178,742	341,500
<i>Total earnings</i>						
March, 1923.....	\$21,509,023	\$2,955,092	\$37,547,167	\$3,156,105	\$13,390,138	\$31,871,108
February, 1924.....	20,888,809	2,980,976	37,102,740	2,777,826	11,805,508	29,794,395
March, 1924.....	21,708,170	3,060,566	38,235,483	3,169,638	13,091,187	32,009,535
<i>Maintenance of equipment and stores</i>						
Month and year	Carmen	Machinists	Skilled trade helpers	Laborers (shops, engine houses, power plants, and stores)	Common laborers, (shops, engine houses, power plants, and stores)	Total for group
<i>Number of employees at middle of month</i>						
March, 1923.....	134,797	63,688	138,558	52,538	64,382	591,754
February, 1924.....	120,969	65,123	120,780	48,904	60,963	548,769
March, 1924.....	121,308	65,150	121,232	48,495	61,180	549,671
<i>Total earnings</i>						
March, 1923.....	\$30,006,796	\$11,967,234	\$15,812,030	\$5,162,403	\$5,377,384	\$79,729,999
February, 1924.....	16,182,455	9,672,871	12,308,617	4,509,836	4,660,250	66,780,248
March, 1924.....	17,533,260	10,402,339	13,297,198	4,742,296	5,076,243	71,531,212

EMPLOYMENT AND UNEMPLOYMENT

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COMPARISON OF EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES IN MARCH, 1924, WITH THOSE OF FEBRUARY, 1924, AND MARCH, 1923—Concluded

Month and year	Transportation other than train and yard					Transportation (yard masters, switch tenders, and hostlers)
	Station agents	Telegraphers, telephoners, and towermen	Truckers (stations, warehouses, and platforms)	Crossing and bridge flagmen and gatemen	Total for group	
	Number of employees at middle of month					
March, 1923-----	31,543	27,432	43,095	22,605	213,709	26,354
February, 1924-----	31,436	26,964	38,992	22,870	208,379	25,728
March, 1924-----	31,390	27,217	39,862	22,851	209,477	25,695
	Total earnings					
March, 1923-----	\$4,767,057	\$4,002,374	\$4,156,913	\$1,634,866	\$25,662,883	\$4,711,108
February, 1924-----	4,554,836	3,722,196	3,461,148	1,696,042	24,049,636	4,410,860
March, 1924-----	4,779,893	4,006,530	3,772,016	1,712,011	25,349,392	4,605,695
	Transportation, train and engine					
	Road conductors	Road brakemen and flagmen	Yard brakemen and yard helpers	Road engineers and motormen	Road firemen and helpers	Total for group
	Number of employees at middle of month					
March, 1923-----	38,236	80,264	55,430	47,556	49,509	344,329
February, 1924-----	37,602	77,596	55,064	45,760	47,879	336,033
March, 1924-----	37,081	76,617	54,234	45,002	47,086	331,043
	Total earnings					
March, 1923-----	\$9,287,692	\$14,151,856	\$9,516,228	\$12,797,513	\$9,452,941	\$69,000,056
February, 1924-----	8,262,286	12,375,054	8,749,406	11,235,100	8,302,987	61,712,680
March, 1924-----	8,350,766	12,465,551	8,963,135	11,341,323	8,397,567	62,613,803

Extent of Operation of Bituminous Coal Mines, March 29 to April 26, 1924

CONTINUING a series of tables which have appeared in previous numbers of the MONTHLY LABOR REVIEW, the accompanying table shows for a large number of coal mines in the bituminous fields the number of mines closed the entire week and the number working certain classified hours per week from March 29 to April 26, 1924. The number of mines reporting varied each week, and the figures are not given as being a complete presentation of all mines but are believed fairly to represent the conditions as to regularity of work in the bituminous mines of the country. The mines included in this report ordinarily represent from 55 to 60 per cent of the total output of bituminous coal. The figures are based on data furnished the Bureau of Labor Statistics by the United States Geological Survey.

[1311]

WORKING TIME IN THE BITUMINOUS COAL MINES IN THE UNITED STATES, BY WEEKS, MARCH 29, 1924, TO APRIL 26, 1924

[The mines included ordinarily represent from 55 to 60 per cent of the total output. Prepared by the Bureau of Labor Statistics from data furnished by the United States Geological Survey]

Week ending—	Number of mines reporting	Mines—															
		Closed entire week		Working less than 8 hours		Working 8 and less than 16 hours		Working 16 and less than 24 hours		Working 24 and less than 32 hours		Working 32 and less than 40 hours		Working 40 and less than 48 hours		Working full time of 48 hours or more	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1924																	
Mar. 29	2,387	925	38.8	41	1.7	218	9.1	333	14.0	281	11.8	216	9.0	164	6.9	209	8.8
Apr. 5	2,380	1,058	44.5	77	3.2	282	11.8	301	12.6	260	10.9	202	8.5	119	5.0	81	3.4
Apr. 12	2,194	1,013	46.2	50	2.3	208	9.5	286	13.0	260	11.9	142	6.5	124	5.7	111	5.1
Apr. 19	2,253	1,052	46.7	63	2.8	194	8.6	297	13.2	251	11.1	179	7.9	108	4.8	109	4.8
Apr. 26	2,310	1,136	49.2	44	1.9	217	9.4	274	11.9	247	10.7	173	7.5	124	5.4	95	4.1

Recent Employment Statistics

Illinois

IN THE April, 1924, issue of the Labor Bulletin of the Illinois Department of Labor the following comparison is made of volume of employment in specified industries in the State for March, 1923, and February and March, 1924:

PER CENT OF CHANGE IN NUMBER ON PAY ROLLS IN VARIOUS INDUSTRIES IN ILLINOIS FROM MARCH, 1923, AND FEBRUARY, 1924, TO MARCH, 1924

Industry	Number of employees in March, 1924	Per cent of change	
		February, 1924, to March, 1924	March, 1923, to March, 1924
Stone, clay, and glass products:			
Miscellaneous stone and mineral products.....	1,721	-4.4	0.0
Lime, cement, and plaster.....	357	-4.5	-3.1
Brick, tile, and pottery.....	4,962	+1.8	+1.5
Glass.....	4,799	+3.0	-3.8
Total.....	11,839	+1.1	-6
Metals, machinery, and conveyances:			
Iron and steel.....	39,555	+4.2	+3.2
Sheet-metal work and hardware.....	8,980	+9	-1.7
Tools and cutlery.....	1,689	-3.4	-18.3
Cooking, heating, ventilating apparatus.....	5,478	+2.1	+3.1
Brass, copper, zinc, babbitt metal.....	2,566	+6	+3.4
Cars and locomotives.....	12,104	+5	-32.0
Automobiles and accessories.....	8,464	-5.2	-18.0
Machinery.....	18,103	-3	+6.6
Electrical apparatus.....	48,504	+1.2	+29.5
Agricultural implements.....	7,955	-4.1	-8.4
Instruments and appliances.....	2,432	+1.2	-1.8
Watches, watch cases, clocks, jewelry.....	7,308	+2.4	+8.5
Total.....	163,138	+1.0	+2.9
Wood products:			
Saw mill and planing mill products.....	2,447	-2.7	+1.8
Furniture and cabinet work.....	7,396	-1	+1
Pianos, organs, and other musical instruments.....	3,549	-1.3	+6
Miscellaneous wood products.....	3,041	+3.5	-22.4
Household furnishings.....	595	+6.1	-23.5
Total.....	17,028	+1	-4.5

[1312]

PER CENT OF CHANGE IN NUMBER ON PAY ROLLS IN VARIOUS INDUSTRIES IN ILLINOIS FROM MARCH, 1923, AND FEBRUARY, 1924, TO MARCH, 1924—Concluded.

Industry	Number of employees in March, 1924	Per cent of change	
		February, 1924, to March, 1924	March, 1923, to March, 1924
Furs and leather goods:			
Leather.....	2,077	+1.8	-15.1
Furs and fur goods.....	69	+7.8	-15.3
Boots and shoes.....	9,996	-1.5	-7.7
Miscellaneous leather goods.....	1,965	+1.8	+24.4
Total.....	14,107	-0.6	-4.7
Chemicals, oils, paints, etc.:			
Drugs and chemicals.....	2,368	+1.3	+8.0
Paints, dyes, and colors.....	2,543	+1.4	-4.5
Mineral and vegetable oil.....	3,916	+4.2	-6.9
Miscellaneous chemical products.....	4,241	+3.0	+9.7
Total.....	13,068	+2.7	+1.6
Printing and paper goods:			
Paper boxes, bags, and tubes.....	3,992	+2.7	+9.1
Miscellaneous paper goods.....	1,569	-1.1	+3.1
Job printing.....	9,737	-3.4	+6.0
Newspapers and periodicals.....	3,554	+3.7	+4.8
Total.....	18,852	-0.5	+5.2
Textiles:			
Cotton goods.....	1,240	-1.2	+26.3
Knit goods, cotton and woolen hosiery.....	3,197	+9.9	+8.6
Thread and twine.....	765	+3.0	-12.4
Total.....	5,202	+6.0	+4.4
Clothing, millinery, and laundering:			
Men's clothing.....	12,907	-5.4	-15.0
Men's shirts and furnishings.....	975	-1.4	+1.2
Overalls and work clothing.....	885	+2.0	-9.2
Men's hats and caps.....	76	+5.6	-45.0
Women's clothing.....	1,484	-7.3	-6.9
Women's underwear and furnishings.....	620	+4.4	-15.1
Women's hats.....	1,393	+1.8	+17.8
Laundering, cleaning, and dyeing.....	2,288	+1.8	-0.2
Total.....	20,628	-3.7	-12.0
Food, beverages, and tobacco:			
Flour, feed, and other cereal products.....	1,104	-10.2	-3.6
Fruit and vegetable canning and preserving.....	452	-8.7	-8.1
Groceries, not elsewhere classified.....	5,095	+4.5	+9.2
Slaughtering and meat packing.....	24,573	-6.2	-2.8
Dairy products.....	3,405	-0.4	+5.7
Bread and other bakery products.....	2,720	+1.9	+7.3
Confectionery and ice cream.....	2,985	+3.0	+5.4
Beverages.....	1,486	+3.0	-2.2
Cigars and other tobacco products.....	1,285	-11.5	-7.8
Manufactured ice.....	245	+10.9	+20.4
Total.....	43,350	-3.4	-0.7
Total, all manufacturing industries.....	307,212	-0.0	-3.5
Trade—wholesale and retail:			
Department stores.....	3,291	+2.6	(1)
Wholesale dry goods.....	56	0	(1)
Wholesale groceries.....	772	+4	+2.2
Mail order houses.....	17,717	-0.7	-5.4
Total.....	21,836	-0.1	(1)
Public utilities:			
Water, light, and power.....	13,969	-0.7	+7.7
Telephone.....	25,728	+1.2	+9.5
Street railways.....	26,776	+1.8	+9.0
Railway car repair shops.....	12,186	-4.3	-12.1
Total.....	78,659	+0.2	+7.3
Coal mining.....	19,276	-2.8	-3.9
Building and contracting:			
Building construction.....	5,624	-1.7	(1)
Road construction.....	121	-3.2	(1)
Miscellaneous contracting.....	802	-4.9	(1)
Total.....	6,547	-2.1	-14.9
Total, all industries.....	433,530	-0.1	+2.1

¹ Not comparable reports.

[1313]

Iowa¹

THE rise or fall of volume of employment in different industries in Iowa in March, 1924, as compared with the previous month is indicated in the statement given below:

CHANGES IN VOLUME OF EMPLOYMENT IN IOWA, FEBRUARY TO MARCH, 1924

Industry group	Employees on pay roll March, 1924		Industry group	Employees on pay roll March, 1924	
	Number	Per cent of increase (+) or decrease (-) as compared with February, 1924		Number	Per cent of increase (+) or decrease (-) as compared with February, 1924
Food and kindred products:			Leather products:		
Meat packing.....	6,565	+1.5	Shoes.....	359	+7.0
Cereals.....	1,180	+5.3	Saddlery and harness.....	362	-4.5
Flour and mill products.....	169	-2.9	Fur goods, tanning, and gloves.....	120	-14.9
Bakery products.....	792	-1.4	Total.....	841	-1.6
Confectionery.....	529		Paper products, printing and publishing:		
Poultry, produce, butter, etc.....	743	+14.8	Paper and its products.....	296	-9.1
Sugar, sirup, starch, glucose.....	651	+3.3	Printing and publishing.....	2,567	+5
Other food products, coffee, etc.....	585	+7.6	Total.....	2,863	-5
Total.....	11,214	+2.7	Patent medicines.....	594	+8.0
Textiles:			Stone and clay products:		
Clothing, men's.....	1,218	+6.8	Cement, plaster, gypsum.....	2,307	+11.9
Millinery.....	192	-13.9	Brick and tile (clay).....	960	+32.2
Clothing, women's, and woolen goods.....	409	-1	Marble, granite, crushed rock, and stone.....	96	-20.0
Gloves, hosiery, awnings, etc.....	789	+2.5	Total.....	3,363	+15.7
Buttons, pearl.....	1,160		Tobacco, cigars.....	446	-2.7
Total.....	3,768	+1.6	Railway car shops.....	6,617	+2
Iron and steel work:			Various industries:		
Foundry and machine shops (general classification).....	4,290	+1.0	Automobile tires.....	269	+22.8
Brass and bronze products, plumbers' supplies.....	230	-1.8	Brooms and brushes.....	194	+9.6
Automobiles, tractors, etc.....	2,244	-7	Laundries.....	289	+1.4
Furnaces.....	432	+5.8	Mercantile.....	3,961	+1.3
Pumps.....	362	+1.4	Public service.....	446	-6.7
Agricultural implements.....	1,082	-2.0	Seeds.....	111	-32.0
Washing machines.....	1,169	+4.7	Wholesale houses.....	1,385	+2.7
Total.....	9,809	+9	Other industries.....	1,060	+6
Lumber products:			Total.....	7,715	+1.8
Millwork, interiors, etc.....	3,497	+1.4	Grand total.....	52,466	+2.1
Furniture, desks, etc.....	902	-2.3			
Refrigerators.....	449				
Coffins, undertakers' goods.....	172				
Carriages, wagons, truck bodies.....	216	+4.8			
Total.....	5,236	+7			

¹ Iowa. Bureau of Labor Statistics. Iowa Employment Survey, March, 1924, p. 2.

Maryland

THE following figures furnished by the commissioner of labor and statistics of Maryland show the percentage differences between the number of employees and between the amounts of pay rolls, in March and April, 1924, in various industries in that State. The pay-roll period is one week except in the case of rubber-tire manufacture, in which the pay-roll period is half a month.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARYLAND
IN MARCH AND APRIL, 1924

Industry	Number on pay roll one week in April, 1924	Per cent of increase (+) or decrease (-), April compared with March, 1924	Amount of pay roll in April, 1924	Per cent of increase (+) or decrease (-), April compared with March, 1924
Bakery.....	893	+8.1	\$20,314	+3.6
Beverages and soft drinks.....	169	+4.3	4,961	+8.2
Boots and shoes.....	1,528	-1.1	30,389	+2.0
Boxes, fancy and paper.....	510	-2	7,702	+2.1
Boxes, wooden.....	490	+4.7	8,601	+1.1
Brass and bronze.....	2,433	-3	57,504	+1.0
Brick, tile, etc.....	976	+6.9	24,318	+13.1
Brushes.....	1,117	+4	21,691	-1.8
Canning and preserving.....	160	-41.0	2,981	-37.2
Car building and repairing.....	4,645	+1.7	156,295	-1
Chemicals.....	1,555	-1.8	42,497	+3.4
Cotton goods.....	2,248	-4.1	37,836	-6
Clothing, men's outer garments.....	4,010	+7.1	86,836	+31.0
Clothing, women's outer garments.....	1,358	-2.6	18,022	-5.6
Confectionery.....	764	-16.0	11,374	-10.2
Fertilizer.....	1,429	+16.3	32,053	+24.0
Food preparations.....	106	-3.7	2,737	+1.2
Foundry.....	1,550	+5.2	39,035	+7.1
Furnishing goods, men's.....	3,350	+1.0	42,387	+1.5
Furniture.....	831	-5.2	20,248	-4.9
Glass.....	1,374	-2.4	30,212	-6.3
Hats, straw.....	1,354	-7	24,758	-3
Ice cream.....	346	+2	10,322	+2.1
Leather goods.....	627	-6	12,182	-2.0
Lithographing.....	469	+2.1	14,002	+4.8
Lumber and planing.....	1,267	-2.0	22,916	+3.6
Mattresses and spring beds.....	149	-5.1	3,424	-19.8
Patent medicines.....	791	-9	12,512	+5
Pianos.....	902	-1.4	24,935	-7
Plumbers' supplies.....	1,460	+2.7	41,182	+10.3
Printing.....	1,359	-6	46,814	+2.7
Rubber-tire manufacture ¹	2,668	+1.0	148,396	+3.8
Ship building.....	758	+27.1	21,740	+37.5
Shirts, etc.....	1,564	-5.8	21,657	-2.5
Silk goods.....	465	+4.0	7,169	-1.3
Slaughtering and meat packing.....	1,441	-1.6	37,587	-9
Stamped and enameled ware.....	1,123	-2.7	22,216	-5.3
Stoves.....	456	+6.2	11,031	+8.7
Tinware.....	3,213	-1	63,190	-2.0
Tobacco.....	1,488	-2.6	23,733	-1.1
Umbrellas.....	331	-4.9	5,840	-7
Miscellaneous.....	3,109	+1.9	73,530	+4.6

¹ Pay roll for one-half month.

Massachusetts

THE following two tables showing recent changes in volume of employment in Massachusetts are reproduced from press releases issued by the Department of Labor and Industries of that State:

INDEX NUMBERS OF EMPLOYMENT IN CERTAIN MASSACHUSETTS INDUSTRIES
IN FEBRUARY AND MARCH, 1923 AND 1924

[December, 1922=100]

Industry group	March		February	
	1924	1923	1924	1923
Cotton goods.....	80.7	99.3	82.3	98.8
Boots and shoes ¹	81.5	104.9	80.9	107.4
Woolen and worsted goods.....	91.9	100.2	94.0	99.5
Foundry and machine-shop products ²	97.3	107.2	99.2	104.7
Rubber products ³	77.9	98.5	81.9	96.6
Dyeing and finishing textiles.....	85.9	95.1	84.5	96.5
Electrical machinery, apparatus, and supplies.....	92.8	116.3	93.1	109.4
Printing and publishing ⁴	94.4	98.3	93.0	99.0
Paper and wood pulp.....	97.1	107.4	94.7	105.3
All industries combined.....	88.4	101.1	88.8	100.5

¹ Includes cut stock and findings.

² Includes foundry and machine-shop products, machine tools, and textile machinery and parts.

³ Includes rubber footwear, rubber goods, and rubber tires and tubes.

⁴ Includes both book and job, and newspaper.

NUMBER OF EMPLOYEES OF 866 MANUFACTURING ESTABLISHMENTS IN MASSACHUSETTS, FEBRUARY AND MARCH, 1924

Industry	Number of establishments	Number of employees on pay roll		Industry	Number of establishments	Number of employees on pay roll	
		February, 1924	March, 1924			February, 1924	March, 1924
Automobiles, including bodies and parts.....	12	1,887	1,878	Jewelry.....	31	3,064	2,591
Boot and shoe cut stock and findings.....	51	2,002	2,001	Leather, tanned, curried, and finished.....	25	4,940	4,823
Boots and shoes.....	73	23,950	24,146	Machine tools.....	24	1,664	1,642
Boxes:				Musical instruments.....	10	1,028	990
Paper.....	27	2,357	2,338	Paper and wood pulp.....	22	6,333	6,493
Wooden packing.....	9	873	877	Printing and publishing:			
Bakery products.....	36	3,281	3,329	Book and job.....	36	2,748	2,783
Cars and general shop construction and repairs, steam railroads.....	4	3,178	3,440	Newspaper.....	19	2,188	2,226
Clothing:				Rubber goods.....	7	2,732	2,752
Men's.....	28	3,010	2,961	Rubber footwear.....	3	7,873	7,279
Women's.....	25	1,177	1,260	Rubber tires and tubes.....	3	1,146	1,149
Confectionery.....	14	3,361	3,323	Silk goods.....	12	2,515	2,574
Copper, tin, sheet iron, etc.....	13	784	782	Slaughtering and meat packing.....	4	1,602	1,550
Cotton goods.....	49	42,772	41,955	Stationery goods.....	7	942	1,004
Cutlery and tools.....	24	4,765	4,876	Steam fittings and steam and hot-water heating apparatus.....	5	1,510	1,678
Dyeing and finishing, textiles.....	6	6,084	6,183	Textile machinery and parts.....	13	5,941	5,719
Electrical machinery, apparatus, and supplies.....	12	9,540	9,516	Tobacco.....	7	982	891
Foundry and machine-shop products.....	70	9,620	9,530	Woolen and worsted goods.....	38	15,349	15,015
Furniture.....	27	2,566	2,581	All other industries.....	109	32,572	32,698
Hosiery and knit goods.....	11	5,194	5,207	Total.....	866	221,530	220,550

New York

THE New York State Department of Labor reports the following fluctuations in volume of employment and pay rolls in certain manufacturing industries in New York State, March, 1924, compared with February, 1924, and March, 1923:

CHANGES IN NUMBER OF EMPLOYEES AND AMOUNTS OF PAY ROLLS IN SELECTED MANUFACTURING INDUSTRIES IN THE STATE OF NEW YORK, MARCH, 1923, AND FEBRUARY, 1924, TO MARCH, 1924

Industry	Per cent of change			
	Feb., 1924-Mar., 1924		Mar., 1923-Mar., 1924	
	Employment	Pay roll	Employment	Pay roll
Cement.....	+6.4	+8.7	+5.9	+16.2
Brick.....	+23.9	+10.2	+45.0	+52.8
Pottery.....	+5.8	+8	+12.7	+21.3
Glass.....	-2.4	-4.9	-9.0	-5.2
Pig iron and rolling mill products.....	+2.8	+4.6	+2.0	+10.7
Structural and architectural ironwork.....	-3.3	-2.1	+11.8	+15.4
Hardware.....	-1.4	-1.4	-9	+6.4
Stamped ware.....	+6	+2.1	-13.6	-2.8
Cutlery and tools.....	-5.0	-3.7	-2.2	+4.7
Steam and hot-water heating apparatus.....	+5.0	+6.3	-12.7	-2
Stoves.....	+5	-7	-3.8	+10.6
Agricultural implements.....	+1.8	+4.0	-15.4	-4.2
Electrical machinery, apparatus, etc.....	+1.2	+2.4	+6.0	+16.1
Foundry and machine shops.....	+5	+9.8	-9.0	-4
Automobiles and parts.....	+2.7	+2.7	+6.3	+11.6
Car, locomotive, and equipment factories.....	-9.6	-9.8	-40.4	-37.7
Railway repair shops.....	+1.4	+1.8	-8.2	-11.6
Lumber, millwork.....	+3	+7.7	+8	+11.7
Lumber, sawmills.....	+8.4	+6.9	-12.6	+3.2
Furniture and cabinet work.....	+5	+1.2	-1.6	+2.4
Furniture.....	+1.6	+2.2	-3.3	-3
Pianos, organs, and other musical instruments.....	-5	-1.3	+4.5	+8.4
Leather.....	-5	+1.1	-8.0	+2.7
Boots and shoes.....	+6	+1.2	-2.4	-5.3
Drugs and chemicals.....	-2.4	-1.1	+2	+9.7
Petroleum refining.....	-1.3	+2.0	-2.4	+1.2
Paper boxes and tubes.....	+1.4	+5.7	+4	+7.1
Printing, newspaper.....	-3	-1.6	-5.3	-2.2
Printing, book and job.....	+4	+2.3	-3.2	+1
Silk and silk goods.....	-1.9	+2.4	-8.4	-7.6
Carpets and rugs.....	+2.3	+5.5	+6.3	+14.8
Woolens and worsteds.....	+15.7	+16.0	-1.7	+10.3
Cotton goods.....	-23.4	-9.9	-40.1	-39.0
Cotton and woolen hosiery and knit goods.....	+1.3	+1.1	-2.7	+2.8
Dyeing and finishing textiles.....	-4.3	-6.5	-15.0	-21.9
Men's clothing.....	-3.0	-6.0	-8.2	-11.2
Shirts and collars.....	-1	+3.4	-16.6	-17.1
Women's clothing.....	+1.6	+4.5	-9.6	-7.7
Women's headwear.....	+13.4	+17.6	-3.7	-4.3
Flour.....	+1	+6.3	-8	+10.6
Sugar refining.....	+2.6	+1.3	-23.7	-16.4
Slaughtering and meat products.....	-1.0	-4.3	+6.9	+10.0
Bread and other bakery products.....	-1	+1	+3.4	+9.4
Confectionery and ice cream.....	+2.7	+6.4	-10.3	-7
Cigars and other tobacco products.....	-3	+2	-5.7	-1.0

HOUSING

Building Permits in Principal Cities of the United States in 1923

THIS article is a summary of the fourth annual report concerning building permits issued in the principal cities of the United States.

Immediately after January 1, 1924, the Bureau of Labor Statistics mailed a questionnaire to the building inspectors of each of the 287 cities having a population of 25,000 or over. A large majority of these cities filled out and returned the questionnaires. To a number, however, it was necessary to send agents of the bureau who compiled the data either from records of permits issued or from the original applications for permits. The number of cities to which it was necessary to send agents was much smaller this year than in any of the preceding years. Reports were finally obtained from 269 cities.

No report was obtained from 18 cities having a population of 25,000 or over. The most of these cities have either no building code at all or one which does not require that a record of the number and cost of the different kinds of buildings be kept, as specified on the bureau's schedule. A very few smaller cities are not reported because they did not respond and it was impracticable to send an agent for the data. Reports were received for the first time from Elmira and Kingston, N. Y., new building codes having recently been adopted in these cities.

This article is a summarization of the most important facts collected. A complete report showing the data in detail will be published later in bulletin form.

Table 1 shows the total number and estimated cost of each of the different kinds of new buildings for which permits were issued in the 269 cities from which schedules were received for the year 1923, the per cent that each kind forms of the total number, the per cent that the cost of each kind forms of the total cost, and the average cost per building.

¹ Reports covering half-year periods were issued for cities having a population of 100,000 or over in the MONTHLY LABOR REVIEW for October, 1922, and October, 1923

TABLE 1.—BUILDING PERMITS ISSUED IN 269 CITIES, IN 1923, BY KIND OF BUILDING

Kind of building	Buildings for which permits were issued				
	Number	Per cent of total	Estimated cost		
			Amount	Per cent of total	Average per building
<i>Residential buildings</i>					
One-family dwellings.....	211,235	38.1	\$881,569,529	28.4	\$4,173
Two-family dwellings.....	45,067	8.1	362,652,290	11.7	8,047
One-family and two-family dwellings with stores combined.....	4,260	.8	42,400,120	1.4	9,953
Multi-family apartments.....	12,925	2.3	551,346,257	17.8	42,657
Multi-family apartments with stores combined.....	1,271	.2	51,204,646	1.7	40,287
Hotels.....	237	(1)	106,159,417	3.4	447,923
Lodging houses.....	46	(1)	686,290	(1)	14,919
All other.....	123	(1)	21,528,950	.7	175,032
Total.....	275,164	49.6	2,017,547,489	65.1	7,332
<i>Nonresidential buildings</i>					
Amusement buildings.....	835	.2	53,913,737	1.7	64,567
Churches.....	1,012	.2	45,770,128	1.5	45,227
Factories and workshops.....	5,132	.9	161,500,065	5.2	31,459
Public garages.....	4,612	.8	52,342,838	1.7	11,349
Private garages.....	221,825	40.0	110,563,189	3.6	493
Service stations.....	3,043	.5	9,772,783	.3	3,212
Institutions.....	246	(1)	37,624,370	1.2	152,944
Office buildings.....	1,494	.3	173,571,658	5.6	116,179
Public buildings.....	162	(1)	21,232,556	.7	131,055
Public works and utilities.....	473	.1	49,899,693	1.6	105,496
Schools and libraries.....	972	.2	155,742,271	5.0	160,229
Sheds.....	23,142	4.2	8,451,577	.3	365
Stables and barns.....	1,094	.2	1,316,652	(1)	1,204
Stores and warehouses.....	14,551	2.6	192,912,895	6.2	13,258
All other.....	1,127	.2	7,533,054	.2	6,684
Total.....	279,720	50.4	1,082,147,416	34.9	3,869
Grand total.....	554,884	100.0	3,099,694,905	100.0	5,586

¹ Less than one-tenth of 1 per cent.

The above table shows that 49.6 per cent of all the new buildings erected in cities of 25,000 or over were residential buildings, and that 65.1 per cent of the money spent in the erection of new buildings was for this class of structure.

This is the second year since the bureau has been collecting these data that more permits have been issued for nonresidential buildings than for residential buildings. This is largely due to the increase in the number of private garages erected. It will be seen that 221,825 permits were issued for private garages, this number being 40 per cent of all the new buildings projected, as compared with 211,235 one-family houses, or 38.1 per cent of the total. In 1920, 1921, and 1922 more permits were issued for one-family houses than for any other class of buildings. While the number of permits issued for nonresidential buildings passed that of permits issued for residential buildings the estimated cost of the latter class was considerably in excess of that of the former. The table shows that \$2,017,547,489, or 65.1 per cent of the total estimated cost of all new construction, was spent for residential buildings as compared with \$1,082,147,416, or 34.9 per cent of the total cost for nonresidential buildings.

Thus, it will be seen that the primary object of builders the past year had been to relieve the housing shortage which undoubtedly still exists in many cities of the United States.

Quite a large sum of money was spent in the erection of buildings paid for by cities, counties, or State governments, practically all of the funds for the erection of buildings shown in the table under the headings of institutions, public buildings, public works and utilities, and schools and libraries being raised from public sources.

The largest amount of money estimated to have been spent for any class of nonresidential buildings was for stores and warehouses, \$192,912,895 being the estimated costs of these mercantile buildings. The last column in the table shows the average cost per building of each of the different classes of buildings for which permits were issued. To the average reader the most interesting of these figures will be those for one-family houses and those for two-family houses. It will be noticed that the average cost of the former was \$4,173, and the latter \$8,047. This shows no very great difference in the cost per family.

The average amount of money spent for the erection per hotel was \$447,928—more than was required for any other class of structure.

Schools and institutions were other groups where the average cost was high, that of the former being \$160,229 and of the latter \$152,944.

It must be borne in mind that the costs given in this and other tables in this article are estimated costs taken from the application for a permit to build. The estimates are made by the owner or builder when he applies for his permit and can not be regarded as absolutely accurate. Often a change in the plans after the permit has been issued necessitates a change in the amount of money spent in the erection of the building. Again, a man may give an estimate which he knows to be too low because he thinks by doing so he can keep the assessed value of his property down. Another reason for low estimates in some cities is that permits are charged for according to the cost of the building.

The total estimated cost of all classes of new buildings for which permits were issued in the 269 cities was \$3,099,694,905—the largest amount ever spent in any one year as far as any known records show.

As has been stated before, the number of cities from which reports were received differed in the different years. Table 2 shows the number and per cent of families provided for by each of the different kinds of dwellings in the 258 identical cities from which reports were received for each of the three years, 1921, 1922, and 1923.

TABLE 2.—NUMBER AND PER CENT OF FAMILIES TO BE HOUSED IN DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 258 IDENTICAL CITIES IN 1921, 1922, AND 1923

Kind of dwelling	Number of buildings for which permits were issued			Families provided for					
	1921	1922	1923	Number			Per cent		
				1921	1922	1923	1921	1922	1923
One-family dwellings	131, 148	179, 522	207, 971	131, 148	179, 522	207, 971	58.3	47.6	45.8
Two-family dwellings	16, 917	36, 229	44, 968	33, 834	72, 458	89, 836	15.0	19.2	19.8
One-family and two-family dwellings with stores combined	3, 444	4, 984	4, 204	5, 262	7, 808	6, 598	2.3	2.1	1.5
Multi-family apartments	4, 901	9, 564	12, 830	52, 000	110, 609	139, 211	23.1	29.3	30.7
Multi-family apartments with stores combined	570	1, 074	1, 258	2, 894	7, 107	10, 576	1.3	1.9	2.3
Total	156, 980	231, 373	271, 231	225, 138	377, 504	454, 192	100.0	100.0	100.0

The most important fact brought out by Table 2 is the large increase in the number of families provided for in 1923 as compared with either 1922 or 1921, there being 454,192 families provided with new housing accommodations in the 258 cities in 1923, as compared with 225,138 in 1921 and 377,504 in 1922.

An illustration of how the American home is changing is shown by the fact that 58.3 per cent of the families provided for were housed in one-family dwellings in 1921. In 1922 this percentage shrank to 47.6 per cent and in 1923 to 45.8 per cent. On the other hand the per cent of families provided for in apartment houses increased from 23.1 per cent in 1921 to 29.3 per cent in 1922 and to 30.7 per cent in 1923. In other words, for every three families which found new living quarters in one-family houses there were two families which went to live in apartments. The widespread effect of this change is more apparent when one considers that this report includes cities with a population of as little as 25,000. Many of the smaller cities, which had no apartment houses at all before the war, are now building this class of dwellings.

The percentage of two-family houses has also increased in each of the last two years as compared with 1921.

There is a movement now, however, in most of the larger cities, which partly offsets this trend toward dwellings designed for more than one family—that is, the large exodus to the suburbs. The high cost of real estate in the cities, the more prevalent use of automobiles, and the better suburban schedules of railroads have all combined to cause many people to build at a considerable distance from their work, quite often outside the city limits. Undoubtedly the large majority of suburban homes are of the one-family type, but as most of them are outside the city limits they do not show in this report.

Table 3 shows the number and cost of each of the different kinds of buildings for the 258 cities from which reports were received in each of the three years, 1921, 1922, and 1923, and the percentage of increase or decrease in the number and in the cost in 1923 as compared with 1921 and with 1922.

The above figures show that there was an increase of 60.2 per cent in the number of permits issued for all classes of new buildings in the 258 cities in 1923 over those issued in 1921 and an increase of 22.3 per cent over those issued in 1922. There was an increase of 95.3 per cent in the estimated cost of these buildings in 1923 as compared with 1921 and of 23.4 per cent as compared with 1922.

For residential buildings the number increased 72.8 per cent in 1923 as compared with 1921 and 17.2 per cent as compared with 1922, while the estimated amount expended increased 113.5 per cent during the former period and 24.1 per cent during the latter period.

From 1921 to 1923 the number of nonresidential buildings increased 49.5 per cent and the increase in 1923 over 1922 was 27.7 per cent. The estimated cost of nonresidential buildings shows an increase of 68.4 per cent in comparing 1923 with 1921 and 22.2 per cent in comparing 1922 with 1923.

TABLE 3.—NUMBER AND COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 233 IDENTICAL CITIES IN 1921, 1922, AND 1923, BY KIND OF BUILDING

Kind of building	Buildings for which permits were issued in—						Per cent of increase (+) or decrease (—) in 1923 as compared with—			
	1921			1922			1921		1922	
	Number	Cost		Number	Cost		Number	Cost	Number	Cost
<i>Residential buildings</i>										
One-family dwellings.....	131, 148	\$21, 505, 345	179, 522	\$760, 832, 067	207, 971	\$871, 704, 763	+58. 6	+67. 2	+15. 8	+14. 6
Two-family dwellings.....	16, 917	114, 682, 111	36, 229	240, 326, 016	44, 968	361, 977, 990	+165. 8	+215. 6	+54. 1	+50. 6
One-family and two-family dwellings with stores combined.....	3, 444	32, 913, 669	4, 984	46, 075, 505	4, 204	42, 005, 497	+22. 1	+27. 6	+15. 7	+8. 8
Multi-family dwellings.....	4, 901	206, 674, 611	9, 564	432, 246, 428	12, 830	548, 992, 657	+161. 8	+165. 6	+34. 1	+27. 0
Multi-family dwellings with stores combined.....	570	13, 987, 679	1, 074	33, 094, 235	1, 228	50, 315, 146	+120. 7	+259. 7	+17. 1	+32. 0
Hotels.....	96	39, 476, 010	151	74, 279, 241	1, 229	103, 783, 617	+138. 5	+162. 9	+51. 6	+39. 7
Lodging houses.....	26	474, 809	69	1, 421, 500	44	678, 280	+69. 2	+42. 9	+36. 2	+52. 3
Other.....	132	7, 638, 505	146	24, 077, 869	123	21, 528, 950	+6. 8	+181. 8	+15. 8	+10. 6
Total.....	157, 234	937, 352, 739	231, 739	1, 612, 352, 921	271, 627	2, 000, 986, 900	+72. 8	+113. 5	+17. 2	+24. 1
<i>Nonresidential buildings</i>										
Amusement buildings.....	772	62, 505, 542	803	62, 219, 970	819	53, 726, 530	+6. 1	-14. 0	+2. 0	+2. 9
Churches.....	909	29, 134, 571	1, 031	42, 471, 970	976	45, 113, 478	+7. 4	+54. 8	+5. 3	+6. 2
Factories and workshops.....	3, 731	73, 482, 094	4, 902	108, 515, 145	5, 035	159, 748, 715	+35. 0	+117. 4	+4. 9	+47. 2
Public garages.....	2, 650	26, 608, 961	3, 479	31, 561, 346	4, 565	51, 762, 838	+72. 3	+94. 1	+31. 2	+61. 0
Private garages.....	117, 955	59, 277, 455	158, 133	72, 878, 690	218, 968	109, 463, 664	+85. 6	+84. 7	+38. 5	+50. 2
Service stations.....	1, 573	3, 728, 131	2, 082	6, 502, 159	2, 968	9, 507, 848	+88. 7	+155. 4	+42. 6	+44. 2
Institutions.....	158	19, 072, 604	266	34, 307, 744	245	37, 499, 370	+55. 1	+96. 6	+7. 9	+9. 3
Office buildings.....	1, 485	113, 994, 025	1, 493	163, 163, 235	1, 449	171, 925, 983	-2. 4	+50. 8	+2. 9	+12. 3
Public buildings.....	153	16, 437, 182	208	19, 932, 343	161	21, 182, 556	+5. 2	+28. 9	+22. 6	+6. 3
Public works and utilities.....	235	13, 349, 376	336	23, 619, 842	459	49, 321, 343	+95. 3	+269. 5	+36. 6	+108. 8
Schools and libraries.....	777	90, 214, 921	931	145, 463, 654	960	153, 069, 381	+23. 6	+70. 3	+3. 1	+5. 6
Sheds.....	27, 006	8, 837, 625	24, 123	7, 337, 906	22, 627	7, 970, 194	-16. 2	-10. 3	+6. 2	+7. 9
Stables and barns.....	10, 195	5, 428, 062	1, 364	1, 637, 650	1, 053	1, 294, 077	-89. 7	-76. 2	-22. 8	-15. 8
Stores and warehouses.....	11, 369	100, 727, 549	15, 069	168, 913, 212	14, 230	190, 930, 687	+25. 2	+89. 6	+5. 0	+13. 0
All other.....	5, 366	12, 872, 101	1, 648	7, 721, 841	1, 125	7, 480, 054	-79. 0	-41. 9	+31. 7	+3. 1
Total.....	184, 334	635, 775, 199	215, 768	876, 276, 707	275, 640	1, 070, 596, 718	+49. 5	+68. 4	+27. 7	+22. 2
Grand total.....	341, 568	1, 573, 127, 938*	447, 507	2, 488, 629, 628	547, 267	3, 071, 583, 618	+60. 2	+95. 3	+22. 3	+23. 4

[1322]

Table 4 following shows the number of families provided with dwellings and the ratio of such families to each 10,000 of population according to the 1920 census and according to estimated population for the specified year, in each city from which data were received for the three years 1921, 1922 and 1923.

It will be noted that the ratio of families provided for is based on both the population according to the 1920 census and on the estimated population for the specified year. The ratio is worked on the two different bases because it is thought that many people would prefer the 1920 figures as they are the latest exact population figures. The other population figures are estimates but they probably are more nearly right than the 1920 census figures. The estimates were made by the Census Bureau of the United States Department of Commerce. It will be noticed that for some cities no estimate of population was made.

The table shows complete reports from 258 cities in 1921. These cities had a population according to the 1920 census of 36,643,576, and homes were provided in new buildings for 225,138 families, this being at the rate of 61.4 per 10,000 of population. In 1921 information was received from 266 cities having a population of 37,054,776. These cities provided new family accommodations for 380,163 families, the ratio being 102.6 to each 10,000 inhabitants. By 1923 this ratio had risen to 123.7 to each 10,000 of population in the 269 cities reporting for that year, there being 459,471 families housed in that year in these cities, which had a population of 37,158,648 according to the 1920 census.

If the estimated population as published by the Census Bureau is used it is found that the ratio of families to each 10,000 of population is only 59.7 in 1921, compared with 97.8 in 1922 and 115.3 in 1923.

Long Beach, Calif., continues to be the fastest growing city of over 25,000 in the United States as far as new homes are concerned. This city, having a population of 55,593 according to the 1920 census, has built in the last three years accommodations for over 18,000 families. In 1923 alone, 7,185 families were provided for in new buildings. This is at the remarkable ratio of 1,292.4 to each 10,000 of the city's population according to the 1920 census or 1,038.1 according to the estimated population for 1923.

Long Beach is the only city where homes were provided for at the rate of 1 for each 10 of the city's population, but its larger next door neighbor, Los Angeles, made almost as remarkable a record. This fast growing city provided for 43,842 families in 1923, or at the rate of 760.3 families to each 10,000 of population according to the 1920 census, and at the rate of 657.4 according to the population as estimated for 1923.

Miami, Fla., and Irvington, N. J., were other cities that stood out as great builders of homes, the former city providing accommodations for 2,338 families in 1923 and the latter 1,313. In Miami this meant that for each 1,000 people in the city, according to the 1920 census, 790.6 families were domiciled in new quarters, or 611.1 families provided for to each 10,000 in the city according to estimated population for 1923. In Irvington 515.3 families were provided for to each 10,000 of the city's inhabitants according to the 1920 census or 432.1 according to the population as estimated for the year 1923.

In New York City the ratio of families provided for to each 10,000 of population in 1923 according to the estimated population for that year was 178.3. In 1921 the ratio based on the estimated population was 89.3 or only a little over half that of 1923. These figures apply only to buildings erected within the city limits. Undoubtedly the increase would be even larger if records could be obtained for all the residential buildings erected in the metropolitan district.

Chicago, too, provided for a greater percentage of families than ever before. The ratio of families provided for to each 10,000 of the city's population was over 100 for the first time since the records have been compiled, being 124.1, based on the census of 1920, or 116.2 based on the estimated population for 1923.

A study of the table will show that the crest of residential building has been reached in some of the cities as a slight falling off is noted in a few cities, both large and small, in the number of families provided for in 1923 as compared with 1922.

Earlier reports concerning building permits issued in the United States are published in Bulletin Nos. 295, 318, and 347 of the Bureau of Labor Statistics and the MONTHLY LABOR REVIEW for July, 1921; April, 1922; October, 1922; July, 1923; and October, 1923.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Akron, Ohio	1921	234	208,435	11.2	(1)	
	1922	385		18.5	(1)	
	1923	719		34.5	(1)	
Alameda, Calif.	1921	152	28,806	52.8	20,643	51.3
	1922	196		68.0	30,201	64.9
	1923	307		106.6	30,759	99.8
Albany, N. Y.	1921	302	113,344	26.6	115,071	26.2
	1922	582		51.3	116,223	50.1
	1923	815		71.9	117,375	69.4
Allentown, Pa.	1921	102	73,502	13.9	82,507	12.4
	1922	229		31.2	84,918	27.0
	1923	375		51.0	87,329	42.9
Altoona, Pa.	1921	91	60,331	15.1	62,528	14.6
	1922	218		36.1	63,523	34.3
	1923	295		48.9	64,368	45.8
Amsterdam, N. Y.	1921	70	33,525	20.9	33,872	20.7
	1922	113		33.7	34,104	33.1
	1923	223		66.5	34,336	64.9
Anderson, Ind.	1921	37	29,767	12.4	30,882	12.0
	1922	56		18.8	31,625	17.7
	1923	83		27.9	32,368	25.6
Asheville, N. C.	1921	374	28,507	131.2	29,314	127.6
	1922	365		128.0	29,854	122.3
	1923	484		169.8	30,394	159.2
Atlanta, Ga.	1921	1,614	200,616	80.5	207,473	77.8
	1922	3,590		178.9	218,216	164.5
	1923	3,792		189.0	222,963	170.1
Atlantic City, N. J.	1921	366	50,707	72.2	51,411	71.2
	1922	1,057		208.5	51,880	203.7
	1923	697		137.5	52,349	133.1
Auburn, N. Y.	1921	28	36,192	7.7	36,428	7.7
	1922	42		11.6	36,585	11.5
	1923	68		18.8	36,742	18.5
Augusta, Ga.	1921	342	52,548	65.1	53,283	64.2
	1922	362		68.9	53,774	67.3
	1923	227		43.2	54,264	41.6

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Aurora, Ill.	1921	126	36,397	34.6	37,209	33.8
	1922	263		72.3	37,950	69.3
	1923	302		83.0	38,551	78.3
Baltimore, Md.	1921	2,176	733,826	29.7	750,864	29.0
	1922	4,234		57.7	762,222	55.5
	1923	5,152		70.2	773,580	66.6
Bangor, Me.	1921	66	25,978	25.4	26,160	25.2
	1922	99		38.1	26,281	37.7
	1923	54		20.8	26,402	20.5
Battle Creek, Mich.	1921	127	36,164	35.1	37,847	33.6
	1922	186		51.4	38,970	47.7
	1923	428		118.3	40,092	106.8
Bay City, Mich.	1921	137	47,554	28.8	47,923	28.6
	1922	61		12.8	48,169	12.7
	1923	29		6.1	48,415	6.0
Bayonne, N. J.	1921	274	76,754	35.7	80,030	34.2
	1922	508		77.9	82,214	72.7
	1923	879		114.5	84,398	104.1
Berkeley, Calif.	1921	706	56,063	125.9	59,781	118.1
	1922	1,113		198.5	61,388	181.3
	1923	2,015		359.4	62,995	319.9
Bethlehem, Pa.	1921	82	50,358	16.3	56,431	14.5
	1922	94		18.7	58,029	16.2
	1923	159		31.6	59,628	26.7
Binghamton, N. Y.	1921	327	66,800	49.0	69,635	47.0
	1922	544		81.4	71,525	76.1
	1923	604		90.4	73,416	82.3
Birmingham, Ala.	1921	1,659	178,806	92.8	186,133	89.1
	1922	1,458		81.5	191,017	76.3
	1923	3,138		175.5	195,901	160.2
Bloomington, Ill.	1921	27	28,725	9.4	29,147	9.3
	1922	64		22.3	29,428	21.7
	1923	111		38.6	29,709	37.4
Boston, Mass.	1921	878	748,060	11.7	757,634	11.6
	1922	3,434		45.9	764,017	44.9
	1923	3,577		47.8	770,400	46.4
Bridgeport, Conn.	1921	404	143,535	28.1	(1)	
	1922	250		17.4	(1)	
	1923	160		11.1	(1)	
Brockton, Mass.	1921	84	66,254	12.7	67,702	12.4
	1922	187		28.2	68,667	27.2
	1923	244		36.8	69,633	35.0
Brookline, Mass.	1921	118	37,748	31.3	39,286	30.0
	1922	626		165.8	40,311	155.3
	1923	367		97.2	41,336	88.8
Buffalo, N. Y.	1921	2,405	506,775	47.5	519,608	46.3
	1922	3,079		60.8	528,163	58.3
	1923	4,262		84.1	536,718	79.4
Butte, Mont.	1921	4	41,611	1.0	41,953	1.0
	1922	19		4.6	42,181	4.5
	1923	11		2.6	42,409	2.6
Cambridge, Mass.	1921	43	109,604	3.9	110,444	3.9
	1922	237		21.6	110,944	21.4
	1923	288		26.3	111,444	25.8
Camden, N. J.	1921	145	116,309	12.5	119,672	12.1
	1922	433		37.2	121,915	35.5
	1923	458		39.4	124,157	36.9
Canton, Ohio	1921	403	87,091	46.3	92,236	43.7
	1922	660		75.8	95,742	68.9
	1923	1,679		192.8	99,248	169.2
Cedar Rapids, Iowa	1921	331	45,566	72.6	47,536	69.6
	1922	448		98.3	48,849	91.7
	1923	495		108.6	50,163	98.7
Charleston, S. C.	1921	204	67,957	30.0	69,366	29.4
	1922	287		42.2	70,305	40.8
	1923	77		11.3	71,245	10.8
Charleston, W. Va.	1921	712	39,607	179.8	42,175	168.8
	1922	424		107.1	43,886	96.6
	1923	505		127.5	45,506	110.8
Charlotte, N. C.	1921	322	46,338	69.5	48,242	66.7
	1922	695		150.0	49,511	140.4
	1923	795		171.6	50,780	156.6

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Chattanooga, Tenn.	1921	226	57,895	39.0	58,867	38.4
	1922	303		52.3	59,515	50.9
	1923	259		44.7	60,163	43.0
Chelsea, Mass.	1921	59	43,187	13.7	44,841	13.2
	1922	76		17.6	45,947	16.3
	1923	91		21.1	47,052	19.3
Chester, Pa.	1921	47	58,030	8.1	60,886	7.7
	1922	122		21.0	62,792	19.4
	1923	148		25.5	64,697	22.9
Chicago, Ill.	1921	12,252	2,701,705	45.3	2,780,655	44.1
	1922	24,227		89.7	2,833,288	85.5
	1923	33,539		124.1	2,886,121	116.2
Chicopee, Mass.	1921	238	36,214	65.7	37,884	62.4
	1922	342		94.4	38,997	87.7
	1923	513		141.7	40,111	127.9
Cicero, Ill.	1921	453	44,995	100.7	49,698	91.2
	1922	828		184.0	52,833	156.7
	1923	1,003		222.9	55,968	184.0
Cincinnati, Ohio	1921	1,161	401,247	28.9	403,418	28.8
	1922	2,609		65.0	404,865	64.4
	1923	1,899		47.3	406,312	46.7
Clarksburg, W. Va.	1921	163	27,869	58.5	28,559	57.1
	1922	188		67.5	29,019	64.8
	1923	181		64.9	29,480	61.4
Cleveland, Ohio	1921	4,084	796,841	51.3	831,138	49.1
	1922	5,153		64.7	854,565	60.3
	1923	7,125		89.4	888,519	80.2
Clifton, N. J.	1921	540	26,470	204.0	28,726	188.0
	1922	665		251.2	30,230	230.0
	1923	901		340.4	31,734	283.0
Colorado Springs, Colo.	1921	116	30,105	38.5	(1)	
	1922	247		82.0	(1)	
	1923	290		96.3	(1)	
Columbia, S. C.	1921	241	37,524	64.2	38,452	62.7
	1922	318		84.7	39,070	81.4
	1923	254		67.7	39,688	61.0
Columbus, Ga.	1921	88	31,125	28.3	31,976	27.5
	1922	205		65.9	32,543	63.0
	1923	223		71.6	33,110	67.4
Columbus, Ohio	1921	1,317	237,031	55.6	247,828	53.1
	1922	2,477		104.5	255,455	97.0
	1923	3,209		135.4	261,082	122.9
Council Bluffs, Iowa	1921	423	36,162	117.0	37,223	113.6
	1922	509		140.8	37,930	134.2
	1923	509		140.8	38,637	131.7
Covington, Ky.	1921	198	57,121	34.7	57,445	34.5
	1922	323		56.5	57,661	56.0
	1923	250		43.8	57,877	43.2
Cranston, R. I.	1921	154	29,407	52.4	30,688	50.2
	1922	230		78.2	31,543	72.9
	1923	279		94.9	32,398	86.1
Cumberland, Md.	1921	132	29,837	44.2	30,981	42.6
	1922	139		46.6	31,671	43.9
	1923	158		50.3	32,361	48.5
Dallas, Tex.	1921	2,846	158,976	179.0	166,543	170.0
	1922	3,604		226.7	171,974	200.6
	1923	3,540		222.7	177,274	199.7
Danville, Ill.	1921	27	33,776	8.0	34,589	7.5
	1922	90		26.6	35,197	25.6
	1923	199		58.9	35,805	55.6
Davenport, Iowa	1921	192	56,727	33.8	58,670	32.7
	1922	300		52.9	59,966	50.0
	1923	265		46.7	61,262	43.3
Dayton, Ohio	1921	546	152,559	35.8	158,119	34.5
	1922	961		63.0	161,824	59.4
	1923	1,090		71.4	165,530	65.8
Decatur, Ill.	1921	335	43,818	76.5	46,519	72.0
	1922	469		107.0	47,479	98.8
	1923	538		122.8	48,439	111.1
Denver, Colo.	1921	1,624	256,491	63.3	263,182	61.7
	1922	2,726		106.3	267,591	101.9
	1923	3,060		119.3	272,031	112.5

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Des Moines, Iowa.....	1921	758	126,468	59.9	132,663	57.1
	1922	1,624		128.4	136,793	118.7
	1923	1,596		126.2	140,923	113.3
Detroit, Mich.....	1921	6,743	993,678	67.9	(1)	
	1922	16,813		169.2	(1)	
	1923	22,764		229.1	(1)	
Dubuque, Iowa.....	1921	77	39,141	19.7	39,240	19.6
	1922	132		33.7	39,306	33.6
	1923	185		47.3	39,372	47.0
Duluth, Minn.....	1921	637	98,917	64.4	102,076	62.4
	1922	1,050		106.1	104,183	100.8
	1923	788		79.7	106,289	74.1
East Chicago, Ind.....	1921	168	35,967	46.7	38,588	43.5
	1922	226		62.8	40,336	56.0
	1923	357		99.3	42,084	84.8
East Cleveland, Ohio.....	1921	472	27,292	172.9	30,090	156.9
	1922	855		313.3	31,955	267.6
	1923	807		295.7	33,820	238.6
Easton, Pa.....	1921	59	33,813	17.4	34,630	17.0
	1922	96		28.4	35,175	27.3
	1923	96		28.4	35,720	26.9
East Orange, N. J.....	1921	376	50,710	74.1	53,235	70.6
	1922	537		105.9	54,918	97.8
	1923	647		127.6	56,601	114.3
East St. Louis, Ill.....	1921	260	66,767	38.9	68,037	38.2
	1922	368		55.1	68,883	53.4
	1923	584		87.5	69,729	83.8
Elgin, Ill.....	1921	67	27,454	24.4	27,683	24.2
	1922	138		50.3	27,835	49.6
	1923	190		69.2	27,987	67.9
Elizabeth, N. J.....	1921	514	95,783	53.7	99,339	51.7
	1922	766		80.0	101,643	75.4
	1923	849		88.6	103,947	81.7
Elmira, N. Y. ¹	1923	57	45,393	12.6	48,354	11.8
El Paso, Tex.....	1921	634	77,560	81.7	83,147	76.3
	1922	666		85.9	92,014	72.4
	1923	514		66.3	96,319	53.4
Erie, Pa.....	1921	518	93,372	55.5	106,485	48.6
	1922	773		82.8	109,528	70.6
	1923	470		50.3	112,571	41.8
Evanston, Ill.....	1921	415	37,234	111.5	39,047	106.3
	1922	832		223.5	40,256	206.7
	1923	1,151		309.1	41,465	277.6
Evansville, Ind.....	1922	509	85,264	59.7	89,053	57.2
	1923	797		93.5	90,569	88.0
Everett, Mass.....	1921	15	40,120	3.7	41,145	3.6
	1922	63		15.7	41,828	15.1
	1923	128		31.9	42,511	30.1
Fall River, Mass.....	1921	141	120,485	11.7	120,668	11.7
	1922	505		41.9	120,790	41.8
	1923	564		46.8	120,912	46.6
Fitchburg, Mass.....	1921	119	41,029	29.0	41,523	28.7
	1922	154		37.5	41,853	36.8
	1923	172		41.9	42,183	40.8
Flint, Mich.....	1921	348	91,599	38.0	105,620	32.9
	1922	403		44.0	111,794	36.0
	1923	1,990		217.3	117,968	168.7
Fort Wayne, Ind.....	1921	586	86,549	67.7	89,525	65.5
	1922	1,406		162.5	91,549	153.6
	1923	1,533		177.1	93,573	163.8
Fort Worth, Tex.....	1921	909	106,482	85.4	111,423	81.6
	1922	1,201		112.8	121,535	98.8
	1923	1,597		150.0	143,821	111.0
Galveston, Tex.....	1921	103	44,255	23.3	45,379	22.7
	1922	252		56.9	46,128	54.6
	1923	154		34.8	46,877	32.9
Gary, Ind.....	1921	494	55,378	89.2	61,239	80.7
	1922	428		77.3	65,146	65.7
	1923	656		118.5	69,054	95.0

¹ Not estimated.

² City building code adopted July 25, 1923; no records kept before that date.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued.

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Grand Rapids, Mich.	1921	630	137,634	45.8	141,197	44.6
	1922	1,402		101.9	143,572	97.7
	1923	1,063		78.7	145,947	74.2
Green Bay, Wis.	1922	132	31,017	42.6	32,505	40.6
	1923	194		62.5	33,100	58.6
Hamilton, Ohio.	1921	192	39,675	48.4	40,553	47.3
	1922	161		40.6	41,005	39.3
	1923	287		72.3	41,458	69.2
Hammond, Ind.	1921	288	36,604	80.0	38,334	75.1
	1922	403		111.9	44,721	90.1
	1923	782		217.2	46,609	167.8
Hamtramck, Mich.	1921	276	48,615	56.8	57,647	47.9
	1922	509		104.7	63,668	79.9
	1923	553		113.8	69,689	79.4
Harrisburg, Pa.	1921	179	75,917	23.6	78,837	22.7
	1922	500		65.9	79,983	62.5
	1923	736		96.9	81,129	90.7
Hartford, Conn.	1921	717	138,036	51.9	(1)	
	1922	1,148		83.2	(1)	
	1923	1,560		113.0	(1)	
Haverhill, Mass.	1921	117	53,884	21.7	55,393	21.1
	1922	175		32.5	56,399	31.0
	1923	134		24.9	57,405	23.3
Hazleton, Pa.	1921	38	32,277	11.8	33,331	11.4
	1922	147		45.5	34,034	43.2
	1923	219		67.9	34,737	63.0
Highland Park, Mich.	1921	250	46,409	53.8	53,533	46.7
	1922	520		111.8	58,222	89.3
	1923	780		167.7	62,911	124.0
Hoboken, N. J.	1921	0	68,166	0	(1)	
	1922	27		4.0	(1)	
	1923	9		1.3	(1)	
Holyoke, Mass.	1921	99	60,203	16.4	60,584	16.3
	1922	235		39.0	60,839	38.6
	1923	262		43.5	61,094	42.9
Houston, Tex.	1921	2,572	138,276	186.0	145,188	177.1
	1922	3,101		224.3	150,079	206.6
	1923	2,875		207.9	154,970	185.5
Huntington, W. Va.	1921	777	50,177	154.9	54,352	143.0
	1922	773		154.1	56,135	137.7
	1923	984		196.1	57,918	169.9
Indianapolis, Ind.	1921	2,565	314,194	81.6	325,632	78.8
	1922	4,131		131.5	335,012	123.3
	1923	3,638		115.8	342,718	106.2
Irvington, N. J.	1921	389	25,480	152.7	27,582	141.0
	1922	672		263.7	28,983	231.9
	1923	1,313		515.3	30,384	432.1
Jackson, Mich.	1921	108	48,374	22.3	50,992	21.2
	1922	331		68.4	52,737	62.8
	1923	347		71.7	54,482	63.7
Jacksonville, Fla.	1921	747	91,558	81.6	95,196	78.5
	1922	609		66.5	97,621	62.4
	1923	877		95.8	100,046	87.7
Jamestown, N. Y.	1922	161	58,917	41.4	40,879	39.4
	1923	216		55.5	41,664	51.8
Jersey City, N. J.	1921	970	298,103	32.5	302,788	32.0
	1922	1,776		59.6	305,911	58.1
	1923	2,438		81.8	309,034	78.9
Johnstown, Pa.	1921	503	67,327	88.1	68,458	86.6
	1922	199		29.6	69,212	28.8
	1923	519		77.1	69,966	74.2
Joplin, Mo.	1922	14	29,802	4.7	(1)	
	1923	15		5.0	(1)	
Kalamazoo, Mich.	1921	200	48,487	41.2	49,886	40.1
	1922	246		50.7	50,817	48.4
	1923	298		61.5	51,749	57.6
Kansas City, Kans.	1921	395	101,177	39.0	103,884	38.0
	1922	515		50.9	113,801	45.3
	1923	879		86.9	115,781	75.9
Kansas City, Mo.	1921	2,678	324,410	79.5	336,157	76.7
	1922	4,668		143.9	343,988	135.7
	1923	6,427		198.1	351,819	182.7

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued.

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Kearney, N. J.	1921	205	26,724	76.7	27,969	73.3
	1922	295		110.4	28,799	102.4
	1923	309		115.6	29,629	104.3
Kenosha, Wis.	1921	128	40,472	31.6	43,054	29.7
	1922	157		38.8	44,858	35.0
	1923	287		70.9	46,662	61.5
Kingston, N. Y.	1923	159	26,688	59.6	26,969	59.0
Knoxville, Tenn.	1921	489	77,818	62.8	82,275	59.4
	1922	854		109.7	85,572	99.8
	1923	982		126.2	88,869	110.5
Kokomo, Ind.	1921	166	30,067	55.2	32,234	51.5
	1922	184		61.2	33,420	55.1
	1923	379		126.1	34,565	109.6
Lakewood, Ohio	1921	877	41,732	210.2	45,834	191.3
	1922	1,743		417.7	48,569	358.9
	1923	1,956		468.7	51,304	381.3
Lancaster, Pa.	1921	73	53,150	13.7	54,065	13.5
	1922	516		97.1	54,675	94.4
	1923	322		60.6	55,285	58.2
Lansing, Mich.	1921	492	57,327	85.8	60,989	80.7
	1922	755		131.7	63,430	119.0
	1923	1,019		177.8	65,871	154.7
Lawrence, Mass.	1921	307	94,270	32.6	95,563	32.1
	1922	606		64.3	96,426	62.8
	1923	1,283		136.1	97,289	131.9
Lewiston, Me.	1923	319	31,791	100.3	33,790	94.4
Lexington, Ky.	1921	127	41,534	30.6	42,451	29.9
	1922	267		64.3	43,062	62.0
	1923	143		34.4	43,673	32.7
Lima, Ohio	1921	155	41,326	37.5	42,797	36.2
	1922	227		54.9	43,777	51.9
	1923	344		83.2	44,757	76.9
Lincoln, Nebr.	1921	241	54,948	43.9	56,582	42.6
	1922	415		75.5	57,671	72.0
	1923	476		86.6	58,761	81.0
Little Rock, Ark.	1921	749	65,142	115.0	67,616	110.8
	1922	936		143.7	69,266	135.1
	1923	695		106.7	70,916	98.0
Long Beach, Calif.	1921	3,882	55,593	698.3	61,430	631.9
	1922	7,061		1,270.1	65,322	1,081.0
	1923	7,185		1,292.4	69,214	1,038.1
Lorain, Ohio	1921	146	37,295	39.1	38,795	37.6
	1922	96		25.7	39,661	24.2
	1923	226		60.6	40,527	55.8
Los Angeles, Calif.	1921	19,572	576,673	339.4	609,821	320.9
	1922	28,033		486.1	634,866	441.6
	1923	43,842		760.3	666,853	657.4
Louisville, Ky.	1921	677	234,891	28.8	236,083	28.7
	1922	1,548		65.9	256,877	60.3
	1923	2,303		98.0	257,671	89.4
Lowell, Mass.	1921	259	112,759	23.0	113,757	22.8
	1922	210		18.6	114,423	18.4
	1923	526		46.6	115,089	45.7
Lynchburg, Va.	1921	50	30,070	16.6	30,159	16.6
	1922	104		34.6	30,218	34.4
	1923	92		30.6	30,277	30.4
Lynn, Mass.	1921	140	99,148	14.1	100,663	13.9
	1922	135		13.6	101,673	13.3
	1923	246		24.8	102,683	24.0
McKeesport, Pa.	1921	127	46,781	27.1	47,413	26.8
	1922	190		40.6	47,834	39.7
	1923	187		40.0	48,255	38.8
Macon, Ga.	1921	162	52,995	30.6	54,425	29.8
	1922	254		47.9	55,378	45.9
	1923	212		40.0	56,331	37.6
Madison, Wis.	1921	283	38,378	73.7	40,152	70.5
	1922	603		157.1	41,336	145.9
	1923	677		176.4	42,519	159.2
Malden, Mass.	1921	94	49,103	19.1	49,829	18.9
	1922	89		18.1	50,313	17.7
	1923	293		59.7	50,797	57.7

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Manchester, N. H.	1921	210	78,384	26.8	79,670	26.4
	1922	273		34.8	80,526	33.9
	1923	370		47.2	81,383	45.5
Mansfield, Ohio	1921	72	27,824	25.9	28,913	24.9
	1922	145		52.1	29,639	48.9
	1923	267		96.0	30,366	87.9
Marion, Ohio	1921	44	27,891	15.8	29,151	15.1
	1922	68		24.4	29,991	22.7
	1923	224		80.3	30,831	72.7
Medford, Mass.	1921	256	39,038	65.6	41,500	61.7
	1922	501		128.3	43,141	116.1
	1923	662		169.6	44,782	147.8
Memphis, Tenn.	1921	1,245	162,351	76.7	165,656	75.2
	1922	2,244		138.2	167,862	133.7
	1923	2,136		131.6	170,067	125.6
Meriden, Conn.	1921	71	29,867	23.8	30,269	23.5
	1922	117		39.2	35,458	33.0
	1923	129		43.2	35,736	36.1
Miami, Fla.	1922	959	29,571	324.3	35,776	268.1
	1923	2,338		790.6	38,258	611.1
Milwaukee, Wis.	1921	2,212	457,147	48.4	469,111	47.2
	1922	2,964		64.8	477,103	62.1
	1923	3,542		77.5	484,595	73.1
Minneapolis, Minn.	1921	3,574	380,582	93.9	392,815	91.0
	1922	4,663		122.5	400,970	116.3
	1923	5,009		131.6	409,125	122.4
Mobile, Ala.	1921	140	60,777	23.0	62,098	22.5
	1922	135		22.2	62,978	21.4
	1923	190		31.3	63,858	29.8
Moline, Ill.	1921	38	30,734	12.4	31,600	12.0
	1922	69		22.5	32,177	21.4
	1923	63		20.5	32,754	19.2
Montclair, N. J.	1921	276	28,810	95.8	29,931	92.2
	1922	503		174.6	30,678	164.0
	1923	814		282.5	31,426	259.0
Montgomery, Ala.	1921	83	43,464	19.1	44,286	18.7
	1922	105		24.2	44,834	23.4
	1923	103		23.7	45,383	22.7
Mt. Vernon, N. Y.	1921	246	42,726	57.6	44,550	55.2
	1922	834		195.2	45,766	182.2
	1923	479		112.1	46,982	101.9
Muncie, Ind.	1921	64	36,524	17.5	38,151	16.8
	1922	103		28.2	39,236	26.3
	1923	221		60.5	40,321	54.8
Muskegon, Mich.	1921	129	36,570	35.3	38,348	33.6
	1922	115		31.4	39,533	29.1
	1923	200		54.7	40,718	49.1
Muskogee, Okla.	1921	200	30,277	85.9	30,795	84.4
	1922	318		105.0	31,140	102.1
	1923	298		98.4	31,485	94.6
Nashville, Tenn.	1921	470	118,342	39.7	119,536	39.3
	1922	696		58.8	120,332	57.8
	1923	752		63.5	121,128	62.1
Newark, N. J.	1921	1,393	414,524	33.6	424,885	32.8
	1922	2,892		69.8	431,792	67.0
	1923	3,920		94.6	438,699	89.4
Newark, Ohio	1921	52	26,718	19.5	26,920	19.3
	1922	108		40.4	27,056	39.9
	1923	152		56.9	30,191	50.3
New Bedford, Mass.	1921	522	121,217	43.1	125,012	41.8
	1922	880		72.6	127,542	69.0
	1923	1,196		98.7	130,072	91.9
New Britain, Conn.	1921	215	59,316	36.2	61,695	34.9
	1922	293		49.4	63,281	46.3
	1923	362		61.0	64,867	55.8
New Brunswick, N. J.	1921	129	32,779	39.4	34,198	37.7
	1922	170		51.9	35,144	48.4
	1923	247		75.4	36,090	68.4
Newburgh, N. Y.	1921	64	30,236	21.1	30,761	20.8
	1922	136		44.8	31,024	43.8
	1923	48		15.8	31,288	15.3

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
New Haven, Conn.	1921	444	162,537	27.3	167,007	26.6
	1922	747		46.0	169,987	43.9
	1923	865		53.2	172,967	50.0
New London, Conn.	1921	89	25,688	34.6	26,620	33.4
	1922	101		39.3	27,240	37.1
	1923	102		39.7	27,861	36.6
New Orleans, La.	1921	2,335	387,219	60.3	394,657	59.2
	1922	3,426		88.5	399,616	85.7
	1923	3,271		84.5	404,575	80.9
Newport, Ky.	1921	12	29,317	4.1	(1)	
	1922	9		3.1	(1)	
	1923	14		4.8	(1)	
Newport, R. I.	1921	45	30,255	14.9	30,734	14.6
	1922	40		13.2	31,054	12.9
	1923	30		9.9	31,374	9.6
Newport News, Va.	1921	63	35,596	17.7	(1)	
	1922	19		5.3	(1)	
	1923	20		5.6	(1)	
New Rochelle, N. Y.	1921	247	36,213	68.2	37,348	66.1
	1922	532		146.9	38,104	139.6
	1923	454		125.4	38,860	116.8
Newton, Mass.	1921	249	46,054	54.1	47,019	53.0
	1922	583		126.6	47,662	122.3
	1923	520		112.9	48,305	107.6
New York, N. Y.	1921	51,360	5,620,048	91.4	5,751,867	89.3
	1922	91,164		162.2	5,839,746	156.1
	1923	105,672		188.0	5,927,625	178.3
Niagara Falls, N. Y.	1921	286	50,760	56.3	53,898	53.1
	1922	422		83.1	55,990	75.4
	1923	533		105.0	58,082	91.8
Norfolk, Va.	1921	419	115,777	36.2	121,260	34.6
	1922	732		63.2	124,915	58.6
	1923	995		85.9	159,089	62.5
Norristown, Pa.	1921	31	32,319	9.6	33,005	9.4
	1922	135		41.8	33,462	40.3
	1923	244		75.5	33,920	71.9
Norwalk, Conn.	1921	72	27,743	26.0	28,288	25.5
	1922	110		39.6	28,651	38.4
	1923	105		37.8	29,015	36.2
Oakland, Calif.	1921	2,681	216,261	124.0	226,472	118.4
	1922	4,313		199.4	233,279	184.9
	1923	5,008		231.6	240,086	208.6
Oak Park, Ill.	1921	720	39,858	180.6	43,012	167.4
	1922	1,065		267.2	45,114	236.1
	1923	1,405		352.5	47,217	297.6
Ogden, Utah.	1921	477	32,804	145.4	33,911	140.7
	1922	413		125.9	34,652	119.2
	1923	339		103.3	35,391	95.8
Oklahoma City, Okla.	1921	1,724	91,295	188.8	95,590	180.4
	1922	1,398		153.1	98,370	142.1
	1923	1,418		155.3	101,150	140.2
Omaha, Nebr.	1921	1,298	191,601	67.7	197,096	65.9
	1922	1,784		93.1	200,739	88.9
	1923	1,951		101.8	204,382	95.5
Orange, N. J.	1921	55	33,268	16.5	33,880	16.2
	1922	116		34.9	34,254	33.9
	1923	107		32.2	34,629	30.9
Oshkosh, Wis.	1921	64	33,162	19.3	33,177	19.3
	1922	78		23.5	33,187	23.5
	1923	120		36.2	33,197	36.1
Pasadena, Calif.	1921	1,262	45,354	278.3	50,145	251.7
	1922	1,225		270.1	51,766	236.6
	1923	1,825		402.4	53,388	341.8
Passaic, N. J.	1921	426	63,841	66.7	65,243	65.3
	1922	376		58.9	66,177	56.8
	1923	544		85.2	67,111	81.1
Paterson, N. J.	1921	587	135,875	43.2	137,463	42.7
	1922	685		50.4	138,521	49.5
	1923	955		70.3	139,579	68.4
Pawtucket, R. I.	1921	277	64,248	43.1	66,198	41.8
	1922	466		72.5	67,499	69.0
	1923	763		118.8	68,799	110.9

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Peoria, Ill.	1921	300	76,121	39.4	77,787	38.6
	1922	432		56.8	78,731	54.9
	1923	432		56.8	79,675	54.2
Perth Amboy, N. J.	1921	110	41,707	26.4	43,188	25.5
	1922	77		18.5	44,175	17.4
	1923	74		17.7	45,162	16.4
Petersburg, Va.	1921	74	31,012	23.9	32,076	23.1
	1922	119		38.4	33,585	35.4
	1923	62		20.0	34,294	18.1
Philadelphia, Pa.	1921	2,406	1,823,779	13.2	1,866,212	12.9
	1922	10,453		57.3	1,894,500	55.2
	1923	8,972		49.2	1,922,788	46.7
Phoenix, Ariz.	1921	407	29,053	140.1	31,130	130.7
	1922	714		245.8	32,514	219.6
	1923	204		70.2	33,899	60.2
Pittsburgh, Pa.	1921	1,335	588,343	22.7	602,452	22.2
	1922	2,711		46.1	607,902	44.6
	1923	2,577		43.8	613,442	42.0
Pittsfield, Mass.	1921	43	41,763	10.3	43,253	9.9
	1922	110		26.3	44,246	24.9
	1923	129		30.9	45,239	28.5
Plainfield, N. J.	1921	135	27,700	48.7	28,804	46.9
	1922	265		95.7	29,540	89.7
	1923	311		112.3	30,276	102.7
Pontiac, Mich.	1921	60	34,273	17.5	37,323	16.1
	1922	35		10.2	39,356	8.9
	1923	96		28.0	41,389	23.2
Port Huron, Mich.	1921	219	25,944	84.4	27,038	81.0
	1922	173		66.7	27,767	62.3
	1923	148		57.0	28,496	51.9
Portland, Me.	1921	207	69,272	29.9	70,926	29.2
	1922	396		57.2	72,027	55.0
	1923	378		54.6	73,129	51.7
Portland, Oreg.	1921	3,136	258,288	121.4	264,859	118.4
	1922	3,658		141.6	269,240	135.9
	1923	4,079		157.9	273,621	149.1
Portsmouth, Ohio.	1921	113	33,011	34.2	36,210	31.2
	1922	261		79.1	36,929	70.7
	1923	167		50.6	37,648	44.4
Portsmouth, Va.	1921	121	54,387	22.2	55,653	21.7
	1922	103		18.9	56,497	18.2
	1923	81		14.9	57,341	14.1
Poughkeepsie, N. Y.	1921	60	35,000	17.1	36,091	16.6
	1922	128		36.6	36,818	34.8
	1923	260		74.3	37,545	69.3
Providence, R. I.	1921	566	237,595	23.8	239,645	23.6
	1922	1,135		47.8	241,011	47.1
	1923	1,307		55.0	242,378	53.9
Pueblo, Colo.	1921	288	43,050	66.9	43,251	66.6
	1922	250		58.1	43,385	57.6
	1923	221		51.3	43,519	50.8
Quincy, Ill.	1921	20	35,978	5.6	37,478	5.3
	1922	81		22.5	37,478	21.6
	1923	125		34.7	37,478	33.4
Quincy, Mass.	1921	404	47,876	84.4	50,230	80.4
	1922	667		139.3	51,799	128.8
	1923	837		174.8	53,368	156.8
Racine, Wis.	1921	169	58,593	28.8	61,079	27.7
	1922	191		32.6	62,736	30.4
	1923	263		44.9	64,393	40.8
Reading, Pa.	1922	333	107,784	30.9	110,022	30.3
	1923	387		35.9	110,917	34.9
Revere, Mass.	1921	152	28,823	52.7	30,461	49.9
	1922	179		62.1	31,553	56.7
	1923	237		82.2	32,645	72.6
Richmond, Ind.	1921	41	26,765	15.3	27,667	14.8
	1922	84		31.4	28,124	29.9
	1923	127		47.5	28,581	44.4
Richmond, Va.	1921	741	171,567	43.2	175,686	42.2
	1922	1,363		79.4	178,365	76.4
	1923	1,513		88.2	181,044	83.6

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Roanoke, Va.	1921	351	50,842	69.0	52,796	66.5
	1922	563		110.7	54,149	104.0
	1923	687		135.1	55,502	123.8
Rochester, N. Y.	1921	1,319	295,750	44.6	305,229	43.2
	1922	1,865		63.1	311,548	59.9
	1923	2,533		85.7	317,867	79.7
Rockford, Ill.	1921	351	65,651	53.5	68,551	51.2
	1922	380		57.9	70,485	53.9
	1923	566		86.2	72,419	78.2
Rock Island, Ill.	1921	94	35,177	26.7	36,513	25.7
	1922	128		36.4	37,403	34.2
	1923	165		46.9	38,293	43.1
Sacramento, Calif.	1921	737	65,908	111.8	67,640	109.0
	1922	1,187		180.1	68,795	172.5
	1923	1,428		216.7	69,950	204.1
Saginaw, Mich.	1921	251	61,903	40.5	67,408	37.2
	1922	509		82.2	68,581	74.2
	1923	405		65.4	69,754	58.1
St. Joseph, Mo.	1921	7	77,939	.9	78,122	.9
	1922	225		28.9	78,177	28.8
	1923	379		48.6	78,232	48.4
St. Louis, Mo.	1921	2,072	772,807	26.8	786,164	26.4
	1922	4,013		51.9	795,008	50.5
	1923	5,544		71.7	803,853	69.0
St. Paul, Minn.	1921	2,194	234,698	93.5	237,781	92.3
	1922	2,535		108.0	239,836	105.7
	1923	2,763		117.7	241,891	114.2
Salem, Mass.	1921	21	42,529	4.9	(1)	-----
	1922	42		9.9	(1)	-----
	1923	106		24.9	(1)	-----
Salt Lake City, Utah	1921	826	118,110	69.9	121,595	67.9
	1922	893		75.6	123,918	72.1
	1923	1,384		117.2	126,241	109.6
San Antonio, Tex.	1921	1,718	161,379	106.5	171,385	100.2
	1922	1,654		102.5	178,066	92.9
	1923	1,587		98.3	184,727	85.9
San Diego, Calif.	1921	1,450	74,683	194.2	79,990	181.3
	1922	1,900		254.4	83,528	227.5
	1923	2,016		269.9	87,126	231.4
San Francisco, Calif.	1921	2,683	508,676	52.7	520,546	51.6
	1922	6,284		123.5	529,792	118.6
	1923	6,794		133.6	539,038	126.0
San Jose, Calif.	1921	300	39,642	75.7	40,613	73.9
	1922	388		97.9	41,260	94.0
	1923	550		138.7	41,957	131.1
Savannah, Ga.	1921	347	83,252	41.7	85,908	40.4
	1922	295		35.4	87,678	33.6
	1923	239		28.7	89,448	26.7
Schenectady, N. Y.	1921	193	88,723	21.8	91,102	21.2
	1922	336		37.9	92,687	36.3
	1923	522		58.8	94,273	55.4
Scranton, Pa.	1921	75	137,783	5.4	139,006	5.4
	1922	406		29.5	139,821	29.0
	1923	360		26.1	140,636	25.6
Seattle, Wash.	1921	1,961	315,312	62.2	(1)	-----
	1922	2,920		92.6	(1)	-----
	1923	2,936		93.1	(1)	-----
Sheboygan, Wis.	1921	90	30,955	29.1	31,659	28.0
	1922	177		57.2	32,128	55.1
	1923	228		73.7	32,597	69.9
Shreveport, La.	1921	1,157	43,874	263.7	46,324	249.8
	1922	1,370		289.5	47,957	264.8
	1923	1,396		318.2	54,590	255.7
Sioux City, Iowa	1921	638	71,227	89.6	74,842	85.2
	1922	728		102.2	77,252	94.2
	1923	567		79.6	79,662	71.2
Sioux Falls, S. Dak.	1921	303	25,202	120.2	26,918	112.6
	1922	357		141.7	28,062	127.2
	1923	394		156.3	29,206	134.9
Somerville, Mass.	1921	204	93,091	21.9	95,541	21.4
	1922	401		43.1	97,174	41.3
	1923	347		37.3	98,807	35.1

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIED YEARS, BY CITY AND STATE—Continued

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
South Bend, Ind.	1921	665	70,983	93.7	73,354	90.7
	1922	1,598		225.1	75,093	212.8
	1923	1,821		256.5	76,709	237.4
Spokane, Wash.	1921	438	104,437	41.9	104,442	41.9
	1922	517		49.5	104,570	49.4
	1923	375		35.9	104,573	35.9
Springfield, Ill.	1921	210	59,183	35.5	60,319	34.8
	1922	473		79.9	61,076	77.4
	1923	385		65.1	61,833	62.2
Springfield, Mass.	1921	827	129,614	63.8	135,877	60.9
	1922	1,723		132.9	140,052	123.0
	1923	1,589		122.6	144,227	110.2
Springfield, Ohio	1921	253	60,840	41.6	62,990	40.2
	1922	357		58.7	64,423	55.4
	1923	346		56.9	65,857	52.5
Stamford, Conn.	1921	190	35,096	54.1	36,634	51.9
	1922	397		113.1	37,659	105.4
	1923	497		141.6	38,685	128.5
Stockton, Calif.	1921	624	40,296	154.9	42,507	146.8
	1922	583		144.7	43,702	133.4
	1923	552		137.0	44,897	122.9
Superior, Wis.	1921	104	39,671	26.2	(1)	
	1922	96		24.2	(1)	
	1923	128		32.3	(1)	
Syracuse, N. Y.	1921	627	171,717	36.5	177,514	35.3
	1922	968		56.4	181,012	53.5
	1923	1,017		59.2	184,511	55.1
Tacoma, Wash.	1921	843	96,965	86.9	99,007	85.1
	1922	862		88.9	100,369	85.9
	1923	861		88.8	101,731	84.6
Tampa, Fla.	1922	422	51,608	81.8	54,781	77.0
	1923	691		133.9	56,050	123.3
Taunton, Mass.	1922	129	37,137	34.7	37,877	34.1
	1923	106		28.5	38,173	27.8
Terre Haute, Ind.	1921	758	66,083	114.7	67,308	112.6
	1922	405		61.3	68,123	59.5
	1923	460		69.6	68,939	66.7
Toledo, Ohio	1921	600	243,164	24.7	253,696	23.7
	1922	1,126		46.3	260,717	43.2
	1923	1,459		60.0	268,338	54.4
Topeka, Kans.	1921	188	50,022	37.6	51,000	36.9
	1922	342		68.4	51,902	65.9
	1923	479		95.8	52,555	91.1
Trenton, N. J.	1921	317	119,239	26.6	122,760	25.8
	1922	556		46.6	125,075	44.5
	1923	785		65.8	127,390	61.6
Troy, N. Y.	1921	86	72,013	11.9	(1)	
	1922	170		23.6	(1)	
	1923	100		13.9	(1)	
Tulsa, Okla.	1921	1,138	72,075	157.9	84,850	134.1
	1922	1,753		243.2	93,558	187.7
	1923	1,498		207.8	102,018	146.8
Utica, N. Y.	1921	478	94,156	50.8	99,442	48.1
	1922	842		89.4	101,599	82.9
	1923	666		70.7	103,457	64.4
Waltham, Mass.	1921	137	30,915	44.3	31,391	43.6
	1922	114		36.9	31,708	36.0
	1923	177		57.3	32,025	55.3
Warren, Ohio	1921	171	27,050	63.2	29,131	58.7
	1922	176		65.1	30,518	57.7
	1923	269		99.4	31,905	84.3
Washington, D. C.	1921	2,195	437,571	50.2	(1)	
	1922	5,266		120.3	(1)	
	1923	4,203		96.1	(1)	
Waterbury, Conn.	1921	271	91,715	29.5	94,585	28.6
	1922	284		31.0	96,498	29.4
	1923	232		25.3	98,411	23.6
Waterloo, Iowa	1921	111	36,230	30.6	37,703	29.4
	1922	106		29.3	38,685	27.4
	1923	235		64.9	39,667	59.2

¹ Not estimated.

TABLE 4.—NUMBER OF FAMILIES PROVIDED WITH DWELLINGS AND THE RATIO OF SUCH FAMILIES TO 10,000 OF POPULATION OF 1920 AND OF ESTIMATED POPULATION OF SPECIFIC YEARS, BY CITY AND STATE—Concluded

City and State	Year	Number of families provided for	Population as of 1920 census	Ratio of families provided for to each 10,000 of population as of 1920	Estimated population as of specified year	Ratio of families provided for to each 10,000 of population as of specified year
Watertown, N. Y.	1921	88	31,285	28.1	31,989	27.5
	1922	122		39.0	32,458	37.6
	1923	158		50.5	32,927	48.0
West Hoboken, N. J.	1921	56	40,074	14.0	40,796	13.7
	1922	138		34.4	41,277	33.4
	1923	138		34.4	41,758	33.0
West New York, N. J.	1921	299	29,926	89.9	32,454	82.9
	1922	351		117.3	34,130	102.8
	1923	839		280.4	35,825	234.2
Wheeling, W. Va.	1921	261	56,208	46.4	(1)	
	1922	352		62.6	(1)	
	1923	423		75.3	(1)	
Wichita, Kans.	1921	1,536	72,217	185.0	75,293	177.4
	1922	1,366		189.2	77,277	176.8
	1923	1,527		211.4	79,261	192.7
Wilkes-Barre, Pa.	1921	82	73,833	11.1	74,873	11.0
	1922	596		68.5	75,565	67.0
	1923	637		86.3	76,258	83.5
Wilmington, Del.	1921	66	110,168	6.0	113,408	5.8
	1922	128		11.6	115,568	11.1
	1923	267		24.2	117,728	22.7
Wilmington, N. C.	1921	165	33,372	49.4	34,378	48.0
	1922	184		55.1	35,048	52.5
	1923	85		25.5	35,719	24.8
Winston-Salem, N. C.	1921	356	48,395	73.6	51,618	69.0
	1922	542		112.0	53,924	100.5
	1923	740		152.9	56,230	131.6
Woonsocket, R. I.	1921	369	43,496	84.8	44,325	83.2
	1922	609		140.0	44,879	135.7
	1923	519		119.3	45,432	114.2
Worcester, Mass.	1921	715	179,754	39.8	184,972	38.7
	1922	820		45.6	188,449	43.5
	1923	1,032		57.4	191,927	53.8
Yonkers, N. Y.	1921	433	100,176	43.2	103,324	41.9
	1922	636		68.5	105,422	65.1
	1923	854		85.2	107,520	79.4
York, Pa.	1921	66	47,152	14.0	47,939	13.8
	1922	182		38.6	48,222	37.7
	1923	272		57.7	48,505	56.1
Youngstown, Ohio	1921	724	132,358	54.7	(1)	
	1922	734		55.5	(1)	
	1923	972		73.4	(1)	
Zanesville, Ohio	1921	56	29,599	18.9	29,806	18.8
	1922	145		49.0	29,965	48.4
	1923	282		95.4	30,124	93.6
Total for 258 cities.	1921	225,138	36,643,576	61.4	37,690,713	59.7
Total for 266 cities.	1922	380,163	37,054,776	102.0	38,852,927	97.8
Total for 269 cities.	1923	459,471	37,158,648	123.7	39,835,875	115.3

¹ Not estimated.

Building Activity in New York City

THE New York Building Congress has recently felt it necessary to call attention to the danger of undertaking too large a program of building during the present year. The construction begun in New York last year exceeded anything previously known, but this year is starting out with the prospect of exceeding that record. The statement issued by the congress, given in the Record and Guide for April 5, 1924, gives some comparative figures bearing on the situation.

During the months October, November, December, and January a year ago contracts were awarded in New York City for buildings having a total floor area of about 30,000,000 square feet. During the four months ending with January

of this year the corresponding figure was about 58,000,000 square feet—almost double. Last year under the burden of unprecedented demand for labor and materials the construction industry became badly disorganized. This year the pressure threatens to be even more severe.

Unquestionably there is a large construction demand. Unless the public is willing to use some foresight in planning for its fulfillment, the demand will run ahead of the existing machinery of production and the public will pay an unduly high price, with the probability of subsequent shrinkage of investment values. To secure stability of investment values, projects should be planned over a period of time that will permit the existing machinery of the building industry to produce needed buildings on a reasonable basis.

It does not seem necessary as yet to recommend against the undertaking of new building operations, but the necessity will soon arise unless—

(1) Owners, architects, and investors take stock of the situation and of their own accord abstain temporarily from adding to the pressure on the building industry.

(2) Owners, contractors, subcontractors, and labor exercise the utmost foresight, fairness, and forbearance in their relations with one another.

In commenting on this warning the Record and Guide calls attention to the fact that the figures given are only up to the beginning of February and that later figures show an even greater increase over preceding years. The contracts awarded in the five boroughs during March, 1924, it is stated, amount to \$131,611,100, which is an increase of 83 per cent over the total for February and of 130 per cent over the figures for March, 1923. The index number of construction value for March, 1924, is 269, "which means an advance of 169 above normal—general growth and normal seasonal increase being taken into consideration."

It is estimated that the number of skilled building workers available in New York this season will be close around 80,000, which is about 5 per cent greater than the number last year. The increase, of course, is far from commensurate with the increase already visible in the building program. On the other hand most of the trades have signed agreements covering two years ahead, so that there is a good prospect of industrial peace.

Tax Exemption and Housing Progress in New York City

ON March 14, 1924, the State Commission of Housing and Regional Planning of New York rendered to the governor and legislature a report and recommendations dealing with the extension of the tax-exemption ordinance. The original ordinance, passed in February, 1921, applied to housing on which construction was begun before April 1, 1922, and finished within two years. Such houses were to be exempt from taxation, except for local improvements, up to 1932, exemption being granted only to the extent of \$1,000 per room, for not over five rooms. In multi-family houses, the exemption was to apply to the value of \$5,000 for each separate family apartment, with the same proviso as to rooms. By successive enactments, the time within which dwellings must be begun in order to claim the exemption was extended to the spring of 1924, and bills for a further extension for one year were presented to the legislature this past winter.

The commission presents three recommendations:

1. That the legislature amend section 4 B of the tax law to permit municipalities to exempt from taxation for local purposes, other than assessment for local improvements, until January 1, 1932, new buildings planned for dwelling purposes exclusively, including buildings three stories in height used exclusively for dwell-

ing purposes above the ground floor, except hotels, provided construction be commenced after April 1, 1924, and before April 1, 1925.

2. That in the city of New York the municipal officials consider the advisability of further restricting the exemption in such a manner that its benefits so far as possible will be enjoyed by home owners and tenants and not by commercial builders or landlords and so that it shall be applied only to buildings constructed in accordance with reasonable standards with relation to sanitation and fire hazards. This may be accomplished by some such means as that of limiting tax exemption to one and two family houses to be sold for a limited price and to apartments to be sold on the so-called "cooperative ownership" plan at a limited price or for which a limited rental will be charged. * * *

3. That Chapter 658 of the Laws of 1922 be further amended to permit foreign and domestic life insurance companies to engage in building residential property until March 1, 1926, and so long thereafter as the housing emergency shall continue.

The commission admits that tax exemption is a subsidy, but justifies its recommendations on the grounds that it has led to the building of large numbers of moderate-priced homes since 1921, that the need for such dwellings is still far in excess of the supply, and that their production will be greatly diminished if the exemption is discontinued. The building records of the city are quoted to show the extent to which exemption stimulated residential building.

Permits for dwelling houses in 1921 showed accommodations for twice as many families as were provided for by the 1920 permits. The value of the new housing projects in 1921 showed an increase of 246 per cent as compared with 1920, while general construction in the same period showed an increase of only 58 per cent.

The upward trend continued into 1922. Building permits issued in the month of March reached an astounding figure, chiefly, if not wholly, through fear of the expiration of the law. There was a rush to get building started in time to get the benefits. On March 28, 1922, the tax-exemption ordinance was extended in New York City for one year, following a further amendment of the tax law. * * * The building permits filed in the five boroughs in 1922 totaled 33,803 for dwellings and 2,205 for tenements.

This boom year, however, was surpassed in 1923 when the total volume of building permits was 38,351 for dwellings and 3,630 for tenements. As in the preceding year permits in the month of March reached an astounding peak—a total of \$145,000,000 for building permits in New York City. This unprecedented peak is due to the fear that the tax-exemption law would be permitted to lapse. The building period for tax exemption expired in April of that year and was not extended until June, leaving a period of three months during which there was great uncertainty. This uncertainty was reflected in a precipitant decline in contracts and permits.

The commission discusses at some length the question of who gets the benefit of the exemption. The full and immediate benefit goes only to the man who builds his own home, who, if he keeps his costs within the prescribed limit, gets a final offset varying according to the time at which construction is commenced.

With each succeeding year, with exemption limited to January 1, 1932, the real value of the inducement diminishes. But with seven more years to run, even for dwellings on which construction is begun prior to April 1, 1924, tax exemption will effect a return of almost one-fourth of the present cost.

To a lesser degree the buyer of a family dwelling benefits by the exemption, but as yet the tenant derives no direct assistance from it. Rents have not been diminished by the provision of new housing. "Immediate benefits can reach the tenant only if the exemption is limited to apartments and dwellings in which not more than a moderate rental is charged, as determined by the local authorities."

But the city itself benefits perhaps more than any other interest concerned, through the increase in taxable values due to the stimulus to building. This increase is shown both in regard to land and to improvements.

The resumption of building has greatly increased the taxable value of the land, which is not included in the exemption. The tax assessment on land for all boroughs for 1922—covering the period March, 1921, to March, 1922, which coincides with the first year of tax exemption—was \$4,976,000,282.^a This represents an increase of about \$56,000,000 over land assessment for 1921, i. e., March, 1920, to March, 1921, just previous to tax exemption. The second year of tax exemption brought land assessments in the five boroughs up to \$5,024,991,202, representing an increase of \$108,990,920.

The increase in assessments on improvements is even more remarkable. In the second year of tax exemption the increase in assessments on improvements was \$785,009,922, while in the year before tax exemption, assessments on improvements showed a decrease of \$337,660,071. Tax exemption, as has been shown in the earlier part of the report, has stimulated the tremendous growth of residential building. * * *

From the increased taxable value of the land, the city is already drawing benefits in larger taxes. From the tremendous increase of taxable values in improvements, the city will derive benefit in a few years. The immediate outlay which the city will have to make in added requirements for fire and police protection, for schools, for sewers and other services is relatively small. In the future the city will be repaid for any immediate outlay. * * *

From the standpoint of revenue, the city must be considered in the character of a business man who ventures an immediate outlay to insure future income. Tax exemption is creating taxable values to an extent heretofore unknown in the history of any municipality.

State Aid for Workers' Dwellings in Queensland¹

THE registrar general of Queensland has recently published a statistical summary of Queensland's resources, activities, and developments, which gives some data concerning the progress of the movement to aid workers to obtain dwellings. Figures are given for five years, showing the increasing importance of the work. For the first and last years covered, some of the leading items are as follows:

	1918-19	1922-23
Number of applications during year.....	300	1,121
Number of applications approved.....	234	754
Amount involved.....	² £77,629	£350,865
Houses completed during year.....	252	609
Amount advanced during year.....	£92,880	£277,062
Amount of security.....	£139,056	£399,520
Amount of interest in arrears at end of year.....	£770	£409

During the five years, 1,995 houses were completed, and while the number of applications approved was three times as great in 1922-23 as in 1918-19, the number awaiting consideration rose from 50 at the end of the first year to 255 at the end of the last, so that apparently the workers are much disposed to take advantage of the plan. Meanwhile, although the amount advanced during the year increased threefold within this period, the amount of interest in arrears at the end of 1922-23 was less by 46.9 per cent than at the end of 1918-19, which appears to indicate that the business side of the matter is not being neglected.

^a Thus in text; apparently intended to be \$4,916,000,282.

¹ Australia (Queensland) Registrar General. A B C of Queensland Statistics, 1924, Brisbane, 1924. P. 103.

² Pound at par—\$4.8665. Exchange rate varies.

INDUSTRIAL ACCIDENTS AND HYGIENE

Physical Examinations for Employees of Pennsylvania Railroad

THE Pennsylvania Railroad has issued a general notice urging each of the 211,000 workers in the employ of the company to undergo a complete physical examination at least once a year at the company's expense. Plans have been prepared by the voluntary relief department, under the direction of the superintendent of the system, by which the corps of physicians employed as medical examiners will be at the service of all employees for this purpose without any cost to them. These examinations, which are for the purpose of encouraging the preservation of health and increasing the average length of life, are entirely independent of the regulations requiring certain train-service employees and others to undergo periodical tests of sight, hearing, etc., to insure fitness for their duties.

The examinations may be made at any time but it is suggested that the birthday of each worker, or some time thereabouts, would be an appropriate occasion, serving as an annual reminder so that the examination would not be overlooked. The instructions point out that no matter how well a person may seem to be it is only the part of wisdom to be examined from time to time in order to detect minor defects or to discover the beginnings of more serious conditions in time to prevent their development.

Industrial Hygiene Clinic, New York City

THE organization of an industrial hygiene clinic in New York City under the auspices of the Reconstruction Hospital, the College of Physicians and Surgeons, and the Industrial Hygiene Division of the State Department of Labor is reported in the Weekly Bulletin of the Department of Health, New York City, April 26, 1924 (p. 123).

The clinic is now open at the Reconstruction Hospital, which has been furnished with all the equipment necessary for the diagnosis and treatment of industrial diseases. There are eminent specialists and consultants on the staff of the clinic. Plans are being made for carrying on various studies of occupational diseases and for publishing the results of the research work done by the staff. It is part of the plan, as the clinic develops, to train doctors and nurses for special service in industrial medicine and surgery.

Coal-mine Accidents in Pennsylvania, 1916 to 1922

THE coal-mine section of the Pennsylvania Compensation Rating and Inspection Bureau has compiled a statistical analysis of the coal-mine accidents in that State for the period 1916 to 1922, inclusive. The report is divided into three sections showing the fatalities in anthracite mining, the fatalities in bituminous coal

mining and the compensation insurance experience during the seven-year period. Each year one out of every five persons engaged in coal mining in Pennsylvania is injured by an accident occurring in connection with his employment, these injuries ranging from slight wounds requiring only a surgical dressing to those occasioning the loss of life. With a view to lessening the toll of accidents much attention is given in the report to analysis of the accidents by causes, as it is considered that detailed information in regard to each accident will show definitely how it might have been prevented.

The fatality rate in the anthracite mines for the years 1916 to 1919 was 6.47 per million net tons and 3.43 per thousand full-time employees, while for the years 1920 to 1922 the rate was 5.82 and 3.04, respectively, a reduction of more than 10 per cent. In bituminous coal mines the fatality rates for the years 1916 to 1919 and 1920 to 1922 were 2.78 and 2.56 per million tons and 2.66 and 2.41 per thousand full-time employees, respectively, the reduction being approximately 9 per cent. In addition to the fatality rates measured by production and man-hours and to fatalities by causes, the report contains a comparison of the fatality rates in bituminous coal mines between insured and self-insured operators; a statement of the mining catastrophes for the years 1901 to 1922; insurance premiums and incurred compensation costs; average cost of fatalities; remarriage rates of widows; dependency distribution in relation to fatal accidents; ratio of weekly compensation to weekly wages; the economic loss from accidents in bituminous coal mining; and the severity distribution of injuries by cause of accident.

The following table shows the coal production, fatalities, and fatality rates, 1916 to 1922, in Pennsylvania:

COAL PRODUCTION, FATALITIES, AND FATALITY RATES IN PENNSYLVANIA, 1916 TO 1922

Industry	Production (net tons)	Number of 2,000-hour workers			Production per man per annum (net tons)
		Outside	Inside	Total	
Anthracite ¹	577,548,000	306,050	790,282	1,096,332	527
Bituminous ²	1,054,452,000	187,740	922,158	1,109,898	950

Industry	Total number of fatalities	Ordinary fatalities ³			Ordinary fatality rate—					
		Out- side	In- side	Total	Per 1,000,000 tons			Per 1,000 2,000- hour workers		
					Out- side	In- side	Total	Out- side	In- side	Total
Anthracite ¹	3,620	465	3,025	3,490	0.81	5.23	6.04	1.52	3.83	3.18
Bituminous ²	3,003	240	2,608	2,848	.23	2.47	2.70	1.28	2.83	2.57

¹ Fatalities in culm recovery excluded.

² Coke excluded.

³ Catastrophes not included.

The following table shows the ordinary coal-mine fatalities by general cause of accident for the years 1916 to 1922:

ORDINARY COAL-MINE FATALITIES IN PENNSYLVANIA, 1916 TO 1922, BY GENERAL CAUSE OF ACCIDENT

Cause of accident	Anthracite		Bituminous	
	Number of fatalities	Per cent of fatalities	Number of fatalities	Per cent of fatalities
Machinery.....	131	3.8		
Boilers and machinery, including mining machines.....			97	3.4
Shafts and hoisting apparatus.....	82	2.4	63	2.2
Railroad cars and engines.....	62	1.8	45	1.6
Mine haulage.....	638	18.4	759	26.7
Electricity.....	60	1.7	110	3.9
Explosives.....	389	11.2	93	3.3
Gas, dust, and fires.....	319	9.2	39	1.4
Falls of roof and coal.....	1,635	47.1	1,552	54.6
Falling objects, not roof or coal.....	28	.8	11	.4
Falls of persons.....	61	1.7	30	1.1
Handling of materials.....	37	1.1	11	.4
Hand tools.....			5	.2
All other.....	29	.8	24	.8
All causes.....	3,471	100.0	2,839	100.0

The following table shows the insured pay rolls, premiums, and losses in anthracite and bituminous mines in Pennsylvania for the years 1916 to 1922:

PAY ROLLS, PREMIUMS, AND LOSSES IN COAL MINING IN PENNSYLVANIA, 1916 TO 1922, BY POLICY YEARS

Policy year	Insured pay roll	Earned premiums	Incurred losses	Average rate (col. 3 ÷ col. 2)	Pure premium (col. 4 ÷ col. 2)	Loss ratio (col. 4 ÷ col. 3)
1	2	3	4	5	6	7
Anthracite						
1922.....	\$11,648,000	\$330,625	\$164,685	\$2.84	\$1.42	0.50
1921.....	20,172,000	613,678	297,276	3.04	1.48	.48
1920.....	26,554,000	883,395	388,249	3.33	1.46	.44
1919.....	22,690,000	691,043	359,938	3.05	1.50	.52
1918.....	19,094,000	706,221	370,776	3.70	1.94	.53
1918-1922.....	100,158,000	3,224,962	1,580,924	3.22	1.58	.49
1917.....	33,735,000	1,104,916	670,975	3.28	1.90	.61
1916.....	15,436,000	499,000	395,655	3.23	2.56	.79
1916-1922.....	149,329,000	4,828,878	2,047,554	3.23	1.77	.55
Bituminous						
1922.....	79,034,000	1,636,517	1,059,079	2.07	1.34	.65
1921.....	119,669,000	2,711,293	1,668,018	2.27	1.39	.62
1920.....	196,447,000	4,957,829	2,257,514	2.52	1.15	.46
1919.....	151,943,000	3,666,061	1,675,624	2.41	1.10	.46
1918.....	162,117,000	4,513,952	2,221,520	2.78	1.37	.49
1918-1922.....	709,210,000	17,485,652	8,881,755	2.47	1.25	.51
1917.....	145,753,000	4,013,390	1,869,954	2.75	1.28	.47
1916.....	81,982,000	2,455,800	1,209,984	3.00	1.48	.49
1916-1922.....	936,945,000	23,954,842	11,961,693	2.56	1.28	.50

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

Workmen's Compensation: A review

THE late Dr. E. H. Downey left completed the manuscript of a handbook on the subject of workmen's compensation. As stated in the author's foreword, the purpose of the work¹ "is not so much a descriptive analysis of existing compensation systems, nor a technical treatise on compensation law or compensation insurance, as a critique of standards for the indemnity of work injuries," it being the hope of the author that the work shall "furnish the matter needed for an informed opinion on the problem with which it deals." The writer's long actuarial and general insurance training and experience and his connection with the administration of various State laws provide an abundant practical background for the book.

The report deals with the subjects of social costs of industrial injuries, scope of workmen's compensation, scale of benefits, administration, insurance, prevention of injuries and the American compensation system. Each chapter is followed by illustrative and informative notes with references in many cases to sources; while a bibliography of some 45 pages gives classified lists of treatises and discussions, thereby suggesting material for an exhaustive study of the subject in its various phases.

One of the most interesting chapters is that relating to the subject of compensation insurance and containing Mr. Downey's judgment of the merits and demerits of the various forms of insurance in use. Obvious advantages attach to the monopolistic system, notably in respect of economy; but this system has not, in the author's opinion, demonstrated its superiority as regards other essentials, in particular the prompt and equitable adjustment of claims. Though a priori reasoning would suggest marked advantages in this regard, "in actual performance there is little to choose in these respects between State and private insurance." There is an undoubted advantage of security, and defective administration can be charged in large measure to insufficient appropriations and the combination of management and adjustment of claims in the same body. The marked excessive cost of stock insurance should be reduced in view of the compulsory nature of the insurance business in many States. Failures among stock and mutual companies, which "have been numerous," should be avoided by the maintenance of adequate rates and adequate reserves. Emphasis is also placed upon proper classification and a thorough rate supervision by the proper authorities.

Administration is another important subject considered, the conclusions being reached that a well-organized and properly staffed compensation board or commission should have the complete and final determination in this field. "Adjudication itself is largely administrative," and "the board should retain supreme authority alike in the purely administrative and the quasi-judicial functions."

The subjects of the social cost of injuries and their prevention, as well as the matter of scope, under which heading the inclusion of

¹ Downey, E. H.: *Workmen's Compensation*. New York, The Macmillan Co., 1924. xxv, 223 pp.

industrial diseases on the same footing as industrial accidents is urged, are discussed from the well-known standpoint of the writer as a supporter of social insurance and of preventive rather than remedial measures.

Revision of Unemployment Insurance Law in Denmark ¹

A NEW unemployment insurance law was passed in Denmark on March 4, 1924, which becomes effective April 1, 1924; the provisions governing employers' contributions, however, do not become effective until July 1, 1924. This law supersedes that of December 22, 1921.²

The new law retains the former maximum daily benefits of 4 kroner ³ for unemployed persons with dependents and 3.50 kroner for those without dependents.

The law of 1921 introduced the payment of benefits for partial unemployment, provided the time lost exceeded one-third of the regular working time. This provision has now been amended so that, in cases of part-time employment, benefits may be granted for all days not employed. It is stated that in actual practice this most likely will not be done, as the law specifies that the by-laws of the funds must be so drawn as to make the members financially interested in getting work instead of benefits. The change was made because of the difficulty of adjusting the benefits so as to arrive at a fair relation between part-time wages plus benefits, and benefits for total unemployment, without violating the provisions as to maximum daily benefits.

The 1921 law refused unemployment benefit to persons who, during the 2 years preceding, had not been employed for at least 10 months; in periods of exceptional unemployment, however, the Minister of the Interior could grant special exemption from this provision. Exemption may also be granted under the new law when the trade-union to which the unemployed person belongs has had extraordinary unemployment in the past two years for at least 12 months, even though it may have ceased at that particular time. Previously the Minister of the Interior after a consultation with a committee of 16 members had the power to declare that exceptional unemployment existed. This power now rests with the so-called "C-Board," which has been increased by four more members of the Rigsdag. Strict regulations are made for determining when exceptional unemployment exists in a trade-union or its branches. Extraordinary unemployment is considered as existing in a trade when for each of the two preceding months unemployment has been half again or twice as much as that fixed as the "average normal unemployment" for the trade. Certain exceptions are made to this rule.

The new law makes compulsory the payment of additional benefits to persons, members of authorized unemployment funds, whose right to ordinary benefits is exhausted. The law limits the amount of such relief, however, in cases where several members of the family live under the same roof, so that only the head of the family receives the full amount, the rest being paid only one-half. Also, within any 12 months the time during which these additional benefits may be paid

¹ Data are from Meddelelser fra Socialraadets Sekretariat, March, 1924.

² See MONTHLY LABOR REVIEW, July, 1922, pp. 162-164.

³ Krone at par=26.8 cents. Exchange rate varies.

shall not exceed the period for which ordinary benefit was granted. The Minister of the Interior may, however, extend this period for trade-unions or their branches in which one-half of the unemployed members have exhausted their regular unemployment benefit.

The use of the unemployment card is now abolished for regular benefits. Special control is, however, established over workers in time of exceptional unemployment either directly, through the unemployment funds themselves, or through the use of unemployment cards for those who receive additional benefits or who are not members of authorized unemployment funds. One part of this card, when work is begun, serves as a notice to stop extra benefits and the other, when the work ends, serves as a notice to resume the payment of unemployment benefits. Certain obligations are placed upon the employer with respect to reporting when a worker is hired, and penalties are imposed on both employer and worker for fraud in connection with the unemployment card system.

Heretofore the relief work furnished by the funds has provided either only part-time employment or employment at less than regular rates. The new law expressly states that if there is a wage contract in force for the work in question the rates provided therein shall apply to the relief work and if no wage contract exists the current wages normally of the locality shall be paid, but to keep the worker interested in securing other work he must pay 15 per cent of this wage over to the central unemployment fund.

State and communal grants for unemployment insurance, which previously were 50 and 33½ per cent, respectively, of the total membership contributions, will be 35 per cent and 30 per cent, respectively, increasing from 54.4 per cent to about 60.6 per cent the sum the funds themselves must furnish from the total income from membership contributions and public grants.

The income from the central unemployment fund has been derived from three sources: The unemployment funds, the employers subject to compulsory accident insurance, and the State. The amount received from the unemployment funds, which was 5 per cent of the regular membership contributions, will be discontinued. The employers formerly contributed on an average 9 kroner per whole-year worker insured, the rates ranging from a minimum of 3 kroner to a maximum of 15 kroner, according to the unemployment risk of the trade. This practice will be discontinued and a uniform rate established amounting, generally, to 5 kroner annually per insured worker, with 2 kroner annually in the case of agricultural and forestry workers and of apprentices during the first two years of apprenticeship. It is estimated that this change will result in a reduction of 2,000,000 kroner in the resources of the funds.

Heretofore the State has granted the central unemployment fund an annual subsidy amounting to one-third of the expenditures for the previous fiscal year for regular benefits, relief works, and courses for the unemployed. Under the new law the State, in addition, will contribute annually a sum equal to 10 per cent of the total regular membership contributions for the last fiscal year, in this way furnishing the fund with an annual grant even when no exceptional unemployment exists. The fund will have another source of income in the sum which workers employed at relief works must pay.

Danish Unemployment Funds, 1922-23¹

THE report on the unemployment funds in Denmark for 1922-23 shows that during the year there were 66 funds in operation, the same as in the preceding year. The number of members decreased during the year from 262,000 to 253,000, of whom 214,000 were men and 39,000 were women. The decreases in 1920-21 and in 1921-22 were about 29,000 and 23,000, respectively. The greatest decreases were among agricultural workers, commercial and office employees, tailors, tobacco workers, and employees in the chemical industry.

The total income of the funds in 1922-23 was 29,800,000 kroner,² 15,700,000 kroner being membership contributions. This is the largest income yet received and is due entirely to increases in the public grants given in proportion to contributions in 1921-22, the State grants having increased from 4,500,000 in the previous year to 9,000,000 kroner. The regular contributions have decreased in about the same proportion as the decrease in membership. During the fiscal year the membership contribution was 61 kroner per member.

Expenditures decreased from 32,700,000 kroner to 21,700,000 kroner, due entirely to the decrease in the relief account. Expenses for administration increased from 1,400,000 kroner to 1,500,000 kroner, or about 6 kroner per member. During the year the fund increased 8,100,000 kroner, or 31 kroner per member.

Up to March 31, 1923, the end of the fiscal year, the State had loaned to the funds a total of 13,610,676 kroner, but 2,074,373 kroner had been repaid, so that the amount due the State was 11,536,303 kroner.

There were over 12,000,000 working-days lost, or about two-thirds the number lost during the preceding year. The days of unemployment per member were 49 as against 65 for the previous year. The average daily unemployment dole was 3.05 kroner, slightly more than that for the previous year.

Social Insurance in Sweden^a

THE first general application of social insurance in Sweden dates from the passing of the 1913 act on old-age and invalidity insurance, although the question was first raised in 1884 when a resolution introduced in the Riksdag resulted in the appointment of a commission of inquiry. As Swedish industry was only beginning to develop at that time and there was practically no organization of the workers, it was not until the organization of the Social-Democratic Party in 1889 and the formation of a national federation of trade-unions a few years later that the question of social insurance aroused general interest. The investigations undertaken by the commission of inquiry resulted, however, in the act of 1889 for the protection of workers against industrial risks and that of 1891 concerning sick benefit funds. In 1901 the workmen's compen-

¹ Dansk Arbejdsgiverforening. Arbejdsgiveren [Copenhagen], Jan. 4, 1924, p. 2.

² Krone at par equals 26.8 cents. Exchange rate varies.

^a Data are from International Labor Review, February, 1924 (pp. 177-195); MONTHLY LABOR REVIEW, October, 1916 (pp. 61, 62); Sweden, Socialdepartementet, Pensionsstyrelsen, Allmänna pensionsförsäkringen år 1922, Stockholm, 1923; Foreningen för arbetarskydd, Arbetarskyddet, Stockholm, No. 6-7, 1922 and No. 1, 1924. For other articles on this subject see MONTHLY LABOR REVIEW, January, 1923, pp. 178, 179, and March, 1923, pp. 141, 142.

sation act was passed and a State insurance institute established with which employers who wished to do so might insure. A law passed in 1910 instituted a new method of regulating sick benefit funds and increased the subsidies paid to them by the State, and two years later further subsidies were granted by the State to cover the payment of maternity benefits.

Old-Age and Invalidity Insurance

OLD-AGE and invalidity insurance was made compulsory by the law of June 30, 1913, which became effective January 1, 1914. This insurance covers nearly everyone, the only persons exempted being certain workers already entitled to pensions, such as civil servants and their wives. Only about 7 per cent of the population between the ages of 16 and 67 is exempt from the payment of annual dues to the insurance fund. The amount of these dues is fixed according to a progressive scale, the annual premium ranging from 3 kronor¹ for the lowest salary grade to 33 kronor for those with an annual assessed income of 10,000 kronor and over. The income classification of employed persons is made by local assessment boards, the collections are made by the national and municipal tax collection services, and the municipalities are obliged to make up the amount of unpaid assessments. As the arrearage on the assessments for the entire country generally amounts to about 15 per cent, and to from 40 to 50 per cent in some towns and industrial districts, this necessitates heavy expenditure on the part of the municipalities. In 1914 the total contributions to the fund amounted to 14,600,000 kronor and in 1923 to 24,200,000 kronor.

Insured persons become eligible for a pension at the age of 67 or upon becoming permanently incapacitated for work. The original bill provided that the pensions of men should be 30 per cent and of women 24 per cent of the total amount paid in by them, but as the amount paid for invalidity was very low the law was amended in 1921 so that the pensioner is entitled to a sum per krona of contribution paid which varies with each five-year age group. Provision was also made for persons who were over 16 years of age at the time the act came into effect, through a special fund which is supported by annual subsidies granted by the State. Supplementary payments are allowed in cases of permanent disability if the income of the person pensioned is less than a certain sum fixed by law and also if there are minor children.

The annual amount of the individual pension at the age of 67 ranges from 51.30 kronor for men and 41.04 kronor for women, in the lowest income group, to 564.30 and 451.44 kronor, respectively, in the highest income group. The invalidity pension at the age of 30 is less than half of the old-age pension.

In 1922 the number of persons insured was, in round numbers, 3,431,500; 57,984 claims for pensions were made and 37,132 pensions were granted during the year. The costs of administration for the year were 1,161,949 kronor.

At the end of 1923, 280,000 pensions were in force. During the year, 36,620,000 kronor was paid out for pensions. Cash on hand at the end of the year amounted to about 233,000,000 kronor.

¹ Krona at par=20.8 cents. Exchange rate varies.

The total amount of premiums paid into the insurance fund for the 10-year period, 1914 to 1923, was 174,550,000 kronor. During this time 458,000 pensions were granted, of which 190,000 were for men and 268,000 for women. About 190,270,000 kronor has been disbursed for pensions since the system has been in operation.

The pensions department has carried on sickness prevention work since 1915, the sum of 650,000 kronor being appropriated annually for this work. Hospital and sanitarium treatment is provided and disabled persons receive vocational training. About 2,000 receive treatment of various kinds each year.

A voluntary insurance system allows any insured person to increase his pension by making additional payments up to a maximum of 100 kronor a year. In order to encourage the taking out of additional insurance the State provides a sum equal to one-eighth of the premium up to a maximum of 3.75 kronor per insured person per year. The number taking advantage of the provision for voluntary insurance is not large, although it has increased somewhat since 1919 when the regulations were made somewhat less rigid than had formerly been the case.

Sickness and Maternity Insurance

SICK benefit funds in Sweden are private organizations, but are regulated by and receive subsidies from the State through the act of July 4, 1910, and the decrees of June 30, 1913, and October 11, 1920. One of the divisions of the social board registers and supervises the sick benefit funds and distributes the Government subsidies. Death benefits may be paid in addition to sickness and maternity benefits, and in case of sickness members receive either hospital, medical, and pharmaceutical treatment or a cash payment varying from 0.90 to 8 kronor. Benefits are payable for at least 90 days in the year. The cash payment is not payable unless the sickness lasts more than 3 days. The death benefit may not exceed 500 kronor. The assessments of members must be fixed in advance but additional payments may be required if the receipts of the fund do not cover the expenditures. No one is allowed to hold membership in more than one ordinary fund but there are supplementary funds which pay benefits to members of ordinary funds who have exhausted their rights to benefits from this source.

There has been a steady development in the number of funds and in their membership. In 1892 there were 221 funds with 24,735 members and in 1922 there were 1,270 ordinary funds with a membership of 726,268 and 32 supplementary funds with 79,736 members. Included in the membership at the end of 1921 were 20,000 persons insured only against death and 60,000 who had taken advantage of a temporary clause allowing them to belong to more than one fund. Altogether there were 641,000 persons or 15 per cent of the population above the age of 15 insured against sickness, one-third of whom were women. The total assets of the funds at the end of 1921 were 22,000,000 kronor, and the total expenditure of the funds for that year was 13,955,000 kronor.

The number of days for which sick benefit was paid was 5,300,000 in 1920, 5,100,000 in 1921, and 6,200,000 in 1922, and the total number of days for which maternity benefit was paid in these years

was 289,000, 287,000, and 274,000, respectively. In 1921 there was paid out 9,695,000 kronor in cash payments, 280,000 kronor for medical treatment, 93,000 kronor for medicines, 296,000 kronor for maternity benefit, and 898,000 kronor in death benefits.

A plan for compulsory sickness and maternity insurance was drawn up by the social insurance commission in 1919. The Ministry of Social Affairs amended the plan of the commission considerably, as it was considered difficult of application, and the amended plan has been submitted to a special commission for consideration in connection with a plan for the establishment of a uniform system of social insurance.

Industrial Accident Insurance

THE payment of compensation for industrial accidents is regulated by the laws of 1901 and 1916, amended in 1919 and 1922, which cover practically all wage earners whose annual earnings do not exceed 9,000 kronor. Compensation begins on the thirty-sixth day after the occurrence of the accident. The benefits provided consist of medical and hospital care, drugs and surgical supplies, and cash benefits not to exceed two-thirds of the wages of the injured. Pensions are provided for permanent disability. In the event of death a funeral benefit of one-tenth of the annual earnings of the deceased is paid, but not to exceed 100 kronor, and to dependents, according to their number, certain graded amounts.

The risk of the employer may be insured either with the State Insurance Institute or with a private insurance company.

According to advance figures for 1923 concerning the activities of the State Insurance Institute in Sweden, under the 1916 accident insurance law 54,900 accidents have been reported to the institute, of which 29,400 involved workers insured with the State Insurance Institute and 25,500 workers insured with mutual insurance companies. Insurance premiums paid under the same law amounted to 6,100,000 kronor. The number of listed employers was 343,000, of whom 308,000 are insured with the State Insurance Institute. Exclusive of compensation paid to State employees, the institute has paid out under the 1916 law 4,155,346 kronor in compensation for industrial accidents, and under the 1901 law 440,449 kronor for industrial accidents and 715,890 kronor for injuries received in military service.

Unemployment Insurance

UNEMPLOYMENT prevention and relief by public authorities has been limited to the organization of public employment offices and relief works and to the payment of special unemployment benefit.² The only system of unemployment insurance, however, is that carried by the trade-unions. The trade-union membership is approximately 200,000, and the unemployment benefits paid by them in 1920 amounted to 700,000 kronor and in 1921 to 8,000,000 kronor, the large amount paid in the latter year being due to the severe economic depression.

An unemployment bill which is under consideration at present provides for a close coordination between the public employment offices and the private societies paying unemployment benefits. In

² See MONTHLY LABOR REVIEW, May, 1918, pp. 221, 222.

order to secure payment of unemployment benefits every unemployed person will have to report at the employment exchange each day, and will receive his allowance only if no work is available. Members will have to pay fixed contributions and the Government will grant a subsidy which it is estimated will amount to about 2,000,000 kronor per year. The benefit paid to insured persons who are involuntarily unemployed may not exceed half their daily earnings and the maximum benefit will be 5 kronor. In order to receive unemployment benefit unemployment must last at least 6 days out of every 14, and in seasonal industries, 12 days out of 28. No benefits will be paid to persons with less than one year's membership in a fund, nor will benefits be paid if unemployment results from a strike or lockout.

Conclusion

WHILE social insurance in Sweden is established on a broad basis covering not a single class but as far as possible the whole population, the system has presented many difficulties of administration. It is sometimes considered that because of centralization of administration it is not sufficiently elastic, there are also objections to the method of calculating benefits, and there is too great a difference between the benefits paid to workers injured in industrial accidents and those paid to aged persons or to workers whose disability is not a result of their employment. While the present economic situation is not favorable to a solution of these problems "there is nevertheless good reason to hope for further improvements, since social insurance may be regarded not only as a measure of justice, but as a guaranty of social peace."

LABOR LAWS AND COURT DECISIONS

Basis of Rent Control Legislation

IN AN article in the MONTHLY LABOR REVIEW of May, 1921 (pages 1-9), on "Legal aspects of the housing problem," the rent laws of New York and the District of Columbia were discussed, legislation of other States also receiving brief mention.

In its consideration of the law in effect in the District of Columbia, the article reviewed briefly a decision by the Supreme Court (*Block v. Hirsh*, 256 U. S. 135, 41 Sup. Ct. 458), in which the validity of the act was sustained by a divided court, thus reversing the decision of the Court of Appeals of the District of Columbia. The basis on which the act was upheld was that there were "elements of a public interest justifying some degree of public control." The statute declared that there was an emergency, arising from the demand for homes and dwellings by persons called into the service of the Federal Government during the war, the population of the city of Washington being rapidly and largely increased, while at the same time building operations were practically suspended. The majority ruled that in view of the "unquestionable embarrassment to the Government and the danger of the public health in the existing condition of things," there was warrant for action by Congress such as was taken, saying that "circumstances may so change in time or so differ in space as to clothe with such an interest [public] what at other times or in other places would be a matter of purely private concern."

On April 21, 1924, a second case came to the Supreme Court, involving the continued operation of the rent control act, which was originally limited to expire within two years from its enactment in October, 1919. However, with amendments, it was extended by an act of August 24, 1921, until May 22, 1922, and subsequently until May 22, 1924. The rent commission had fixed rates for an apartment in the city of Washington, cutting down the rents charged by the owners, and from this ruling the owners appealed. The lower and appellate courts of the District had rested upon the decision of the Supreme Court in the case *Block v. Hirsh*, and dismissed the bill brought by the owners, assuming the continuing validity of the act. The appellants raised the contention that "the emergency that justified interference with ordinarily existing private rights in 1919 had come to an end in 1922," so that the constitutional warrant for such interference no longer existed.

It is interesting to note that the opinion sustaining the law was delivered by Mr. Justice Holmes, and in the present case the same justice, the full court concurring, reversed the courts below, not on the ground that the earlier opinion was incorrect and should not be followed, but that "a law depending upon the existence of an emergency or other certain state of facts to uphold it may cease to operate if the emergency ceases or facts change even though valid when passed"; and in view of the lack of evidence submitted as to the present existence or nonexistence of the emergency recognized at the earlier date it was desirable to remit the case for an accurate and careful inquiry into the facts as they now exist. "The evidence should be preserved so that if necessary it can be considered by this

court." The court recognized as a matter of public knowledge that the demand for employees by the Government had considerably diminished, and also recognized that the extensive activity in building had modified conditions. "If about all that remains of war conditions is the increased cost of living that is not in itself a justification of the act. Without going beyond the limits of judicial knowledge, we can say at least that the plaintiff's allegations can not be declared offhand to be unmaintainable, and that it is not impossible that a full development of the facts will show them to be true. In that case the operation of the statute would be at an end."

The case was therefore remitted, as already stated, for the procuring of evidence in the field indicated (*The Chastleton Corporation et al. v. A. Leftwich Sinclair et al.*, 44 Sup. Ct.). On its further consideration of the evidence, the court below reached the conclusion that the emergency had ceased, and on May 19 enjoined the rent board from proceeding further in the case. In the meantime, Congress took action, extending the law another year, the President approving the act on May 17.

Chinese Restaurant Keeper as "Merchant"

IT IS well known that immigration of Chinese laborers is prohibited, but that merchants are permitted to enter, as are students and certain others. In a case recently decided by the Supreme Court of the District of Columbia a ruling was necessary as to the meaning of the term "merchant." Mak Fou Cho petitioned for a determination of status as a merchant in order that he might have the right to bring his minor son from China to this country. Evidence was submitted by the petitioner and also developed by the Immigration Service, under the rules issued to carry out the Chinese exclusion laws. The Department of Labor found from this evidence that he had been, for at least one year prior to his application, bookkeeper and cashier of a Chinese restaurant, owning an interest therein, and that he performed no manual labor in connection with the conduct of the business or otherwise. Upon these facts the department decided that he had no real part in the managerial or buying and selling part of the business and that he was not a merchant. His attorneys obtained a reconsideration of the case, whereupon it was referred for opinion to the Office of the Solicitor, who is the law officer of the department. That office investigated the applicable part of the act of Congress of November 3, 1893, which is as follows:

The term "merchant," as employed herein and in the acts of which this is amendatory, shall have the following meaning and none other: A merchant is a person engaged in buying and selling merchandise, at a fixed place of business, which business is conducted in his name and who during the time he claims to be engaged as a merchant, does not engage in the performance of any manual labor, except such as is necessary in the conduct of his business as such merchant.

It found that up to 1915 the various departments which had the duty of administering the Chinese exclusion laws had treated a restaurant keeper as a laborer. This view had also been upheld in the few court decisions on the point. In the Department of Labor, however, that view was modified in 1915 by reason of the decision of the Circuit Court of Appeals of the Second Circuit which referred to a Chinese restaurant keeper, named Lee Chee, as a merchant (224

Fed. 447). There was also another unreported decision of a United States District Court holding that "while a Chinese could own a restaurant and yet be a laborer, it was obvious that a side of the restaurant business was mercantile, as the purchasing of supplies and the selling of the cooked food."

The Solicitor's office discovered that the Chinese, Lee Chee, referred to by the Circuit Court as a "merchant" was, according to the records, a keeper of a Chinese grocery, from which fact it was urged that the reference by the court to him as a restaurant keeper was obviously an unintentional misstatement of fact, and that the decision, therefore, was not really in point upon the status of a restaurant keeper. It was also brought out by that office that since these decisions the same Circuit Court of Appeals had held that under the bankruptcy laws a restaurant was not a mercantile business because the "dishes" of food served in a restaurant would be called by no one "merchandise," and that that case had been affirmed by the United States Supreme Court. The Solicitor's office therefore advised the department that a restaurant was not a mercantile establishment and that the department would be justified in holding that Mak Fou Cho is not a merchant under the Chinese exclusion laws. The department adopted the opinion and again refused to grant Mak Fou Cho a mercantile status.

He thereupon petitioned the Supreme Court of the District of Columbia to issue a writ of mandamus to direct the Secretary of Labor as respondent, to make favorable indorsement of the application for mercantile status.

The court disposed of the case by considering a few points. It has been ruled by the courts that it is not necessary that a partnership name should appear in the firm title but it must appear in the books and partnership articles. The petitioner therefore met the requirements of the statute except as to buying and selling merchandise, so that "if the business of running a restaurant were concededly mercantile there would be no contesting the petitioner's right to claim a mercantile status as defined in the act." While the finding of the department was that the petitioner takes no part in the buying and selling, or of the management of the business, the department does not concede that the business of running a restaurant is mercantile. "Had the respondent found that the restaurant business is not mercantile and that one carrying it on in any capacity is not engaged in 'buying and selling' his decision would not have been arbitrary or capricious, for courts have differed as to that in construing the exclusion laws, and the Supreme Court in construing the bankruptcy laws has held that one engaged in the restaurant business is not engaged in a trading or mercantile pursuit. *Nollman & Co. v. Wentworth Lunch Co.*, 217 U. S. 591, following *Toxaway Hotel Co. v. Smathers*, 216 U. S. 439, where, speaking of articles of food, the court says: 'Such articles are not bought to be sold, nor are they sold again as in ordinary commerce.' In the *Toxaway* case it was held also that running a grocery store in connection with the hotel did not make the hotel business mercantile." Following this ruling the Supreme Court of the District of Columbia held that though the petitioner had sold cigars and cigarettes, that did not make the restaurant business mercantile. "So considered the case

is that the respondent took jurisdiction of the petitioner's application, heard and weighed the testimony on a question of fact and found under the law that the petitioner was not entitled to what he asked for." In *Interstate Commerce Commission v. United States ex rel Waste Merchants Association*, 260 U. S. 32, it is stated that "mandamus can not be had to compel a particular exercise of judgment or discretion," citing *Riverside Oil Co. v. Hitchcock*, 190 U. S. 316. Holding that the petitioner therefore had no statutory right to what he asked for, the court dismissed the petition for a writ against the Secretary of Labor. (*United States ex rel Mak Fou Cho v. James J. Davis, Secretary of Labor*. Decision rendered April 21, 1924.)

The decision is of importance in Chinese immigration, for the reason that it is as the wives and minor children of the managing members of Chinese restaurants that a great number of alien Chinese have been gaining admission since 1915.

Limiting Fees of Employment Agencies, California

THE Legislature of California was apparently of the opinion that judicial opinion is subject to change, and that legislation once declared unconstitutional may subsequently receive the approval of the courts. Chapter 414, acts of 1923, was an amendment to the employment agency law of the State, limiting the fee that might be charged by such agencies for their services, penalizing any charges in excess of such restriction. This was just 20 years later than the enactment of a similarly restrictive law in the same field, which was declared unconstitutional the next year (1904) as an unwarranted infringement on the right of citizens to contract. (*Ex. parte Dickey*, 144 Cal. 234. 77 Pac. 924.)

In the present case the court reverted to its earlier decision, quoting therefrom at some length, supporting itself also by citations from the decision of the Supreme Court in the case *Adkins v. Children's Hospital*, 261 U. S. 525, 43 Sup. Ct. 394. In its former opinion the court had stated that *Dickey* was "engaged in a harmless and beneficial business," a part of his property being the services rendered in obtaining employment for those seeking it. "It is not compulsory upon anyone to employ him, and whoso seeks to avail himself of his services is at liberty to reject them if the terms of the contract for compensation are not satisfactory to him." This common right of contract was arbitrarily interfered with by the act in question, depriving the petitioner of his property, restricting his activities by a law not applicable to other business men.

Of the *Adkins* case it was said that it "made an exhaustive review of the authorities touching the right to contract about one's affairs, including the right to make contracts of employment, and held that such a right was a part of the liberty of the individual which is protected by the fifth amendment to the Constitution of the United States." Holding that the same arguments are applicable here, and that the decision of the "highest court of the country" was conclusive upon it, "even if we found ourselves without a precedent within our own jurisdiction," the court declared the statute invalid and ordered the prisoner discharged. (*Ex. parte Smith*, 223 Pac. 971.)

LABOR ORGANIZATIONS

Annual Congress of Japanese Federation of Labor ¹

THE thirteenth annual congress of the Japanese Federation of Labor was held in Tokyo, February 10 to 12. Mr. Bunji Suzuki, the veteran labor leader of Japan, was reelected president of the federation.

The aims of the labor movement and the attitude of the federation towards the International Labor Organization are defined in the following resolution adopted unanimously by the congress.

The labor movement in our country stands at a turning point. We believe it is of special importance and significance, from the point of view of the history not only of the General Federation of Japanese Labor but also of the whole labor movement of Japan, that the present declaration should be made.

Capitalism in Japan, pushed by the circumstances of the world in advance of its normal development, took prematurely the form of imperialism, which is the last stage of capitalism, without passing through the stage of liberalism. Consequently, it became deeply tinged with absolutism, and, as a result, there are in Japan great obstacles to the free progress of the proletariat.

Moreover, while on the one hand the spirit of the class struggle throughout the world, which has reached its highest point, has perhaps too rapidly engendered the aspirations of a part of the Japanese labor movement, gradually awakening since the great European War, it has failed on the other hand to create a clear understanding of the mission and duty of trade-unions in the effort for the emancipation of the workers. Consequently, it has been difficult for the movement of the proletariat in Japan to become a mass movement; and the movement of the few, ardently aspiring to high ideals, has necessarily taken a somewhat doctrinaire and unconciliatory form.

We believe that, hitherto, such a development of the labor movement of this country was inevitable, in view of the abnormal development of capitalism. But it would be a great and culpable error if we continued in the future to take the same attitude as in the past. We are faced with the necessity of making our policy more realistic and more positive than before, having regard to the tendency of capitalism in recent years and to the increasing power of the workers in this country.

The labor movement of Japan has reached a stage where it should transform itself from a minority movement into a movement of the masses. The negative attitude towards policies of social reform must be replaced by a positive attitude and an effort to utilize such policies.

For instance, though we have, of course, no expectation that the complete emancipation of the people can be obtained through a bourgeois parliament, we must nevertheless endeavor to acquire such partial profit as is possible by exercising effectively the right to vote, after the introduction of universal manhood suffrage. We must endeavor to accelerate the awakening among the people of an interest in politics.

Further, with regard to the International Labor Conference, we must deliberately consider our policy toward it, and endeavor to further the progress of the trade-union movement in this country.

¹ International Labor Office: *Industrial and Labor Information*, Geneva, Mar. 31, 1924, pp. 38, 39; *The Trans-Pacific*, Tokyo, Apr. 5, 1924, p. 4.

COOPERATION

Cooperative Marketing of Fruits, Livestock, and Grain in the United States ¹

CURRENT issues of Agricultural Cooperation, published by the United States Bureau of Agricultural Economics contain the results of the bureau's tabulation of reports from farmers' cooperative organizations of various types.

The following table compiled from the above periodical, shows figures of membership and business of the various types of marketing organizations in 1923:

MEMBERSHIP AND BUSINESS OF FARMERS' MARKETING ASSOCIATIONS, 1923

Commodity marketed	Total number reporting	Membership		Business	
		Number reporting	Members	Number reporting	Amount
Fruits and vegetables.....	1, 103	629	96, 329	-----	\$221, 188, 977
Livestock.....	25	-----	-----	25	193, 282, 835
Grain.....	3, 029	2, 358	333, 560	1, 848	349, 199, 000

The bureau points out that inasmuch as reports have not yet been received from all the fruit and vegetable marketing associations, the total business actually done by organizations of this type is much greater than is shown in the above table, probably being "in excess of \$250,000,000."

As would be expected, California led all the States in number of societies marketing fruits and vegetables (236), in membership of these societies (35,385), and in amount of their sales (\$65,337,000). Illinois led in the marketing of grain, with 392 societies, 39,318 members, and sales of \$52,445,000.

Of the associations marketing fruits and vegetables, 26.9 per cent of those reporting were located in the Pacific States. The West North Central States led in the number of grain-marketing associations, having 61.90 per cent of all those reporting and making 58.7 per cent of the total sales reported.

The table following shows the growth of farmers' cooperative business organizations as indicated by reports to the United States Bureau of Agricultural Economics.

¹ Data are from United States Department of Agriculture, Bureau of Agricultural Economics, Producer-controlled grain-marketing organizations in the United States, preliminary report (mimeographed), March, 1924; and Agricultural Cooperation, Washington, D. C., issues of Feb. 11 and 25, Mar. 24, and Apr. 21, 1924.

AMOUNT OF BUSINESS OF FARMERS' COOPERATIVE BUSINESS ORGANIZATIONS,
1912 TO 1923

Year	Number of associations reporting	Business done	
		Total amount	Average per association
1912.....	889	\$123, 215, 000	\$138, 600
1913.....	3, 099	310, 313, 000	100, 100
1914.....	2, 877	274, 140, 000	95, 200
1915.....	504	52, 722, 000	104, 600
1916.....	939	114, 601, 000	122, 000
1917.....	859	192, 136, 000	223, 600
1921.....	7, 374	1, 256, 214, 000	170, 300
1922.....	4, 103	885, 183, 000	215, 700
1923.....	10, 160	¹ 2, 200, 000, 000	-----

¹ Estimated on basis of average per society in 1922.

Eleventh International Cooperative Congress, 1924

GHENT, Belgium, will be the scene of an international cooperative and social welfare exhibition to be held from June 15 to September 15, 1924. The various cooperative movements of the world will be represented by exhibits showing cooperative productions, etc., and the aim will be to "concentrate all forms of cooperative activity without regard to religious, philosophical, or political opinions. It will be a mirror which will faithfully reflect the cooperative movements of all the countries with the specific characteristics which distinguish them from one another."

The exhibition of cooperation will deal with five phases of the movement: History, organization, and propaganda; consumers' cooperation; industrial productive cooperation; agricultural cooperation for purchase, sale, and production; and cooperative credit and insurance. The social welfare exhibit will cover cooperative, public, and private work along this line.

The following congresses will be held during the exhibition: The eleventh International Cooperative Congress; meeting of International Labor Bureau; the International Congress of Technical Instruction; Fine Arts International Congress; International Cooperative Insurance Congress; and Belgian Cooperative Congress.

Creation of International Institute on Cooperation ¹

PRELIMINARY plans for the formation of the International Institute on Cooperation were drawn up at a meeting held in Washington, D. C., on February 11, 1924, of representatives of a number of farmers' cooperative organizations and the United States Department of Agriculture. "The institute is to be in the nature of a school where employees and members of cooperative organizations and students and instructors of agricultural colleges may study all phases of the various kinds of cooperation, including both organizations for the purchase and sale of commodities, mutual farmer insurance companies, and the like."

¹ State and Federal Marketing Activities, Washington, D. C., issues of Feb. 13, and Apr. 16, 1924; and Agricultural Cooperation, Washington, D. C., Apr. 21, 1924.

The first school will be held in August or September, 1925. A preliminary conference will be held in Cleveland in August of this year, when the scope and problems of cooperation will be considered. Committees have been appointed on finance, scope of courses to be given, and membership.

It is expected that "the larger and more important associations in all the principal countries will eventually become sustaining members of the institute."

Cooperation in Foreign Countries

Bulgaria

THE first official statistics of the Bulgarian cooperative movement have recently been published by the General Statistical Department of Bulgaria, and the report is summarized in the March 17, 1924, issue of Industrial and Labor Information (Geneva). The report covers 1,718 of the 2,940 cooperative societies established and registered prior to October 15, 1921. The statistics cover the year 1920. The following table shows the number and membership of the various types of societies:

NUMBER AND MEMBERSHIP OF BULGARIAN COOPERATIVE SOCIETIES, 1920, BY TYPE OF SOCIETY

Type of society	Societies reporting		Number of societies affiliated with central cooperative organizations
	Number	Membership	
Credit societies.....	977	119,352	171
Consumers' and building societies.....	409	120,519	46
Purchase, sale, and manufacturing societies.....	146	37,053	421
Insurance societies.....	32	64,149	-----
Societies for joint use of machinery, etc.....	48	2,802	-----
Workers' productive societies.....	54	587	-----
Other types of societies.....	39	3,791	1
Central unions.....	13	50,070	1,073
Total.....	1,718	398,323	1,712

The statement below shows the resources of the societies in 1920:

	Leva ¹
Share capital.....	114,796,230
Reserve funds.....	38,241,544
Other funds.....	15,790,139
Savings deposits.....	165,556,585
Net surplus savings (1,335 societies reporting).....	28,509,302
Net losses (197 societies reporting).....	1,189,651

In order to assist the further extension of the cooperative movement, the Bulgarian Government has decided to open a Higher School of Cooperation. According to the regulations published in the "Official Journal," the object of the school, which is to be opened

¹ Leva at par=19.3 cents. Exchange rate varies.

shortly at Sofia, will be to train a competent staff for the direction of the various cooperative undertakings in the country. It will also exercise a general supervision over the organization of cooperative courses.

The administrative board of the school will include two representatives of the Ministry of Agriculture, two representatives of the Agricultural Bank, and two of the faculty of agriculture, with one representative of each of the following organizations: The Central Cooperative Bank, the General Union of Agricultural Cooperative Societies, the Union of Peoples' Banks, the Agricultural Society, and the Union of Consumers' and Producers' Cooperative Societies.

One-half of the expenditure involved is to be borne by the Ministry of Agriculture, and the other half by the Agricultural Bank and the Central Cooperative Bank.

The educational course is to be of two years' duration. It will cover, in addition to cooperation in all its branches, agriculture, accountancy, cattle raising, foreign languages, etc. Practical work will be undertaken in agricultural undertakings and in cooperative societies. The school will be equal in grade to the special higher schools of the country. As from its second year of existence, a certain number of places in the school will be reserved for women students.

Czechoslovakia ¹

AT THE end of 1922 there were in affiliation with the Central Union of Czechoslovak Workers' Cooperative Productive Societies 216 societies of which 74 were societies manufacturing clothing and boots and shoes, 33 were carpenters' and joiners' societies, 36 were building and glass-making societies, 11 were paper factories and printing establishments, 21 were metallurgical societies, 29 were associations manufacturing foodstuffs, 10 were theatrical and motion-picture societies, and 2 were unclassified. The operations for 1922 of the 184 societies furnishing reports were as follows:

Number of societies reporting.....	184
Number of members.....	13, 082
Number of employees.....	4, 106
	Kroner ²
Share capital.....	10, 000, 000
Amount of business.....	173, 562, 729
Surplus savings for year.....	839, 777

Germany

A CONSULAR report, dated February 13, 1924, received by this Bureau contains figures compiled by the German Statistical Office showing the number of societies of each type in operation at the end of the years 1922 and 1923. These are given in the table below; for the purposes of comparison, figures for 1914 and 1919 are also given:

¹ International Cooperative Bulletin, London, March, 1924, p. 93.

² Krone at par=20.3 cents. Exchange rate varies.

NUMBER OF REGISTERED COOPERATIVE SOCIETIES IN GERMANY AT END OF EACH YEAR, 1914, 1919, 1922, AND 1923

Type of society	Number of societies in operation at end of—			
	1914 ¹	1919 ¹	1922	1923
Credit societies.....	19,203	20,199	20,812	20,884
Raw-materials societies:				
Industrial.....	436	1,353	2,160	2,188
Agricultural.....	2,429	2,935	4,389	4,593
Societies for the purchase of merchandise.....	317	648	1,377	1,472
Establishment societies:				
Industrial.....	348	339	371	371
Agricultural.....	1,909	2,404	6,457	6,781
Societies for the purchase of machinery and tools.....	17	13	23	21
Storage societies:				
Industrial.....	123	123	140	141
Agricultural.....	512	637	979	976
Raw-materials and storage societies:				
Industrial.....	154	233	331	313
Agricultural.....	24	40	45	47
Workers' productive societies:				
Industrial.....	428	1,106	1,211	1,126
Agricultural.....	4,001	4,094	3,886	3,999
Stock breeding and grazing societies.....	486	588	913	926
Consumers' societies.....	2,340	2,313	2,492	2,594
Housing societies.....	1,346	1,485	3,311	3,422
Other building societies.....	128	135	201	210
All other types of societies.....	378	406	923	1,034
Total.....	34,579	39,056	50,021	51,098

¹ Data are from German Statistical Yearbook for 1920.

Great Britain

THE growth of the Cooperative Insurance Society since being taken over by the English and Scottish Cooperative Wholesale Societies in 1913 is briefly sketched in an article in *The Producer* (Manchester, England) for March, 1924 (p. 135). Comparative figures for 1913 and 1923 are given in the statement below:

	1913	1923
Total assets.....	£517,744	£3,000,000
Premium income:		
Industrial insurance.....	4,096	758,639
Life insurance.....	139,774	885,313
Fire insurance.....	40,905	159,009
Accident insurance.....	271	12,038
General insurance.....	10,949	163,050
Employers' liability insurance.....	28,158	74,711
Total.....	224,153	2,052,760
Amount for which insured:		
Industrial policies.....	28,068	10,142,168
Life policies.....	117,713	1,619,481

In 1913 the society had 208 employees; at the end of 1923 this number had grown to 2,600.

It is stated that only one other industrial (noncooperative) company in Great Britain has shown "a larger relative increase in funds."

India

THE *International Review of Agricultural Economics* (Rome) for January-March, 1924, contains (pp. 43-61) an article on agricultural cooperation in India, by the registrar of cooperative societies of the Punjab, of which the following is a summary.

The cooperative movement was introduced into India as a measure of famine prevention by the Government, which hoped that through the system of cooperative credit and the consequent inculcation of thrift "the economic position of the masses would be so strengthened that they would be able to resist the periodic catastrophes which, in less happy days, led inevitably to famine, starvation, and death." The result is that the Indian cooperative movement is "largely the product of official stimulus and official energy."

The first cooperative legislation was the act of 1904, which authorized the formation of credit societies and provided for the appointment in each of the major Provinces of a registrar whose duties were the organization and supervision of cooperative credit societies. The original act was replaced by another, in 1912, closely resembling the English friendly societies act. In two particulars, however, the Indian act is unlike that of other countries. The registrar is empowered (1) to refuse registration under the act until he is satisfied that the projected society has a fair chance of being successful and (2) to cancel registration and thus force any doubtful society into liquidation. "Both these powers are designed and are used to insure a high quality of work within the society, and to build up public confidence in cooperative credit."

Some 47,300 primary credit societies are at present registered under the act, of which 45,000 are rural banks with unlimited liability, on the Raiffeisen plan. These may be classified into those with and without "shares."

In the "share" society, in order to accumulate capital quickly, each member subscribes a small sum each year for 10 years, at the end of which time the sum so accumulated may be (1) returned to the members; (2) converted into permanent shares of specified value, any surplus above this amount being returned; or (3) the whole sum converted into nonreturnable shares. As the article under review points out, the term, "shares" is a misnomer, since "they are in no sense a measure of a member's stake in the society; they do not affect his unlimited liability; they are not shares in the joint-stock sense. On the other hand they differ from compulsory deposits in that on liquidation they rank after deposits, so that a deposit would be repaid, if need arose, from shares before any call would be made on the unlimited liability. They are best regarded as a small paid-up portion of the unlimited liability." The accumulated profits may be converted into nonreturnable shares in place of or in addition to the other shares, or "kept indivisible forever"; at least one-fourth must be kept as indivisible reserve. "Thus after 10 years many share societies become pure Raiffeisen; others distribute profits up to a maximum of 9 or 10 per cent in the twelfth and succeeding years; others retain shares with indivisible profits. Generally speaking, Moham-medan societies prefer indivisible profits, while Hindu and Sikh societies incline to dividends in the twelfth year." Where the "share" system does not exist, the societies follow the pure Raiffeisen model, with unlimited liability and indivisible profits.

The actual working of the societies is stated to be much the same throughout the country. For each member a maximum of credit is fixed which can not be exceeded without the consent of the general meeting.

Within these limits, the committee accords sanction to loans to members; these loans, in the peculiar circumstances of India, can not be confined to productive purposes, but the essential of "necessity" is usually insisted upon, that is to say a member is allowed to borrow for expenditure which the committee regards as necessary in view of the ceremonies the member has to perform. A persistent attempt is being made with promising results to impose a limit to expenditure on marriages, funerals, and other objects which religion or custom demands; but when it is remembered that extravagance upon marriages is regarded by many observers as the most important cause of debt, the difficulty of controlling this item will be appreciated. The great difficulty facing all attempts to diminish expenditure on these ceremonies is the existence of the money lender always ready and anxious to lend what the society refuses to advance. * * * The chief objects for which loans are advanced are repayment of old debts (everywhere a large item), marriages, seed, fodder and cattle, and the payment of land revenue. This last item represents chiefly the assistance afforded to the cultivators to hold up their produce for better prices while still enabling them to meet the Government demand. Less important objects numerically are land redemption, land improvement, sinking of wells, rent, land purchase, and purchase of agricultural implements.

It is stated that, on the whole, the movement is making steady progress. During the past five years the number of agricultural credit societies has increased from 23,000 to 45,000, membership from 851,000 to 1,516,000, and working capital from 68,900,000 to 133,200,000 rupees.³

Peculiar conditions make the progress of cooperation difficult: Illiteracy; the extreme dependence of agriculture upon the monsoon and its vagaries, which prevents regular repayment; the absence, due to religious beliefs, of animal husbandry and of many subsidiary occupations which add to the family income in Europe; the fact that caste feeling prevents all except those of low caste from keeping poultry and that sericulture and rural industries are also looked down upon; the low standard of living; and the customs which "involve expenditure out of all proportion to the means of the cultivators and which are readily catered for by the ubiquitous money lender. * * * Finally there is a remarkable lack of economic organization into which the cooperative movement can fit. The most striking element in the economic life of India is waste. But when an attempt is made to remedy this by cooperative organization, it is found that a single society or even a small group can do little; not until the whole machinery of rural activity is properly organized on cooperative lines will there be scope for many forms common in Europe."

Although the writer feels that, considering the small number of years since the inception of the movement in India, the success achieved has been "remarkable," nevertheless "the credit societies have only touched the fringe of the great problem of rural indebtedness."

They have afforded ground for hope that a way of escape has been discovered, that the Indian cultivator can get out of debt whenever he is prepared to make a real effort at self-help and thrift, and that borrowing from the money lender is not the necessity which some Indian writers prefer to believe. At the same time, it must be admitted that cooperative credit is not likely to rid the country of the great burden of useless debt which encumbers agriculture; there are many devoid of the desire to put forth any effort at self-improvement; many lack the character which is essential to success; many lack the strength of will; many are too selfish, and having got rid of their own debts with the aid of a society resign and leave their neighbors to their fate; others are too weak to resist the

³ Rupee at par = 48.66 cents. Exchange rate varies.

wiles of the ever-present money lender, and sink back into his toils as soon as the society attempts to recover loans from them. The movement is achieving great success, but it is too young yet to replace age-old customs; a new generation must spring up unaccustomed to money lenders and accustomed to regard their society as the financing agency before it will be time to pronounce a verdict upon the cooperative credit movement in India. The magic works in congenial soil here as elsewhere; but there are many who do not desire economic uplift who are content with the ample leisure which the satisfaction of their simple wants leaves them, and who will not throw off the easy habit of reliance upon nature when nature is bountiful and on the money lender when she is not.

Japan⁴

THE earthquake of September, 1923, caused a great deal of damage to the cooperative societies of Tokyo. According to a report received by the executive committee of the International Cooperative Alliance, in the districts of Tokyo, Kanagawa, Chiba, Saitama, and Shiznoka, of 768 cooperative societies, 331 have been seriously affected. In Tokyo alone the damage to cooperative property amounts to over 5,500,000 yen.⁵ The Japanese Government, it is stated, is making arrangements to lend the societies affected 2,400,000 yen for relief work.

The Japanese Central Association of Cooperative Societies has recently been admitted into affiliation with the International Cooperative Alliance.

Netherlands

THE Dutch Statistical Yearbook⁶ for 1922 contains (pp. 126-129) figures showing the development of Raiffeisen societies and certain of the central cooperative unions. The table below gives figures showing the loans made, the deposit accounts, and the savings effected by credit societies of the Raiffeisen type for each year of the period 1912 to 1921:

DEVELOPMENT OF RAIFFEISEN CREDIT SOCIETIES IN THE NETHERLANDS, 1912 TO 1921

[Florin at par=40.2 cents. Exchange rate varies]

Year.	Total number of societies	Number of societies reporting	Loans made		Deposit accounts at end of year		Surplus savings for year
			Number	Amount	Number	Amount	
				<i>Florins</i>		<i>Florins</i>	<i>Florins</i>
1912.....	835	830	14,591	12,725,000	99,152	44,902,000	179,000
1913.....	886	883	15,696	15,817,000	112,976	52,183,000	214,000
1914.....	928	926	12,061	12,022,000	126,630	56,599,000	258,000
1915.....	955	953	10,384	11,835,000	145,723	81,674,000	136,000
1916.....	1,024	1,016	10,989	17,739,000	167,115	113,043,000	444,000
1917.....	1,067	1,061	11,579	20,064,000	190,180	149,080,000	376,000
1918.....	1,115	1,105	9,843	28,268,000	216,573	196,842,000	435,000
1919.....	1,159	1,154	10,828	49,760,000	242,520	227,765,000	539,000
1920.....	1,206	1,201	16,830	55,130,000	265,829	238,361,000	928,000
1921.....	1,228	1,223	18,328	49,216,000	306,650	289,710,000	1,286,000

In the table following are shown the membership, business, and certain financial statistics of seven of the central cooperative organizations of the Netherlands, for the period 1910 to 1922:

⁴ International Cooperative Bulletin, London, March, 1924, p. 72.

⁵ Yen at par=49.85 cents. Exchange rate varies.

⁶ Netherlands. Centraal Bureau voor de Statistiek. Jaarcijfers, 1922. The Hague, 1924. liii, 335 pp.

DEVELOPMENT OF CENTRAL COOPERATIVE SOCIETIES IN THE NETHERLANDS, 1910 TO 1922
[Florin at par=40.2 cents. Exchange rate varies]

Year	Farmers' Central Cooperative Institute							Central Agricultural Cooperative Bank							Central Cooperative Raiffeisen Bank						
	Affiliated societies	Amount of business	Paid-in share capital	Borrowed capital	Reserve funds	Surplus savings for year	Affiliated societies	Amount of loans made	Paid-in share capital	Reserve funds	Surplus savings for year	Affiliated societies	Amount of loans made	Paid-in share capital	Borrowed capital	Reserve funds	Surplus savings for year				
1910	283	Florins 4,686,000	7,000	---	---	33,000	32	Florins 391,000	2,000	7,000	14,000	317	Florins 4,518,000	19,000	---	33,000	19,000				
1911	310	5,636,000	7,000	---	---	22,000	34	377,000	2,000	7,000	11,000	385	6,351,000	23,000	---	54,000	11,000				
1912	346	7,688,000	8,000	---	---	8,000	36	404,000	2,000	6,000	13,000	439	8,252,000	27,000	---	67,000	14,000				
1913	363	9,013,000	9,000	---	---	11,000	36	666,000	2,000	3,000	13,000	475	15,271,000	31,000	---	82,000	6,000				
1914	378	8,627,000	9,000	---	---	56,000	36	859,000	37,000	108,000	14,000	500	13,408,000	33,000	---	90,000	23,000				
1915	386	7,739,000	116,000	---	---	129,000	36	325,000	36,000	105,000	15,000	520	6,224,000	34,000	---	106,000	16,000				
1916	409	13,060,000	123,000	---	---	26,000	37	234,000	37,000	110,000	37,000	564	5,588,000	37,000	2,579,000	137,000	75,000				
1917	423	22,906,000	127,000	600,000	16,000	270,000	41	408,000	41,000	130,000	133,000	588	7,014,000	39,000	3,600,000	214,000	93,000				
1918	436	30,499,000	131,000	1,288,000	189,000	6,000	45	666,000	45,000	146,000	159,000	622	5,376,000	42,000	5,125,000	306,000	7,000				
1919	489	47,035,000	141,000	2,890,000	203,000	65,000	45	1,620,000	45,000	198,000	164,000	632	32,616,000	51,000	7,082,000	316,000	65,000				
1920	490	48,158,000	147,000	3,646,000	254,000	486,000	45	2,085,000	45,000	219,000	110,000	658	67,052,000	62,000	6,785,000	364,000	10,000				
1921	501	39,243,000	150,000	3,354,000	736,000	770,000	45	2,173,000	45,000	256,000	137,000	668	38,769,000	64,000	6,661,000	374,000	298,000				
1922	508	35,017,000	206,000	3,075,000	1,295,000	264,000	42	2,181,000	45,000	259,000	1,203,000	676	21,425,000	67,000	6,533,000	671,000	381,000				

Year	Consumers' Cooperative Wholesale Society "De Handelskamer"						Central Dutch Consumers' Societies		Union of Dutch Cooperative Dairies		Society "Central Administration"	
	Affiliated societies	Member-ship	Amount of business	Value of goods produced	Paid-in share capital	Reserve funds	Surplus savings for year	Affiliated societies	Member-ship	Affiliated societies	Member-ship	
1910	92	---	Florins 3,217,000	107,000	95,000	34,000	41,000	---	---	380	---	
1911	113	---	3,752,000	106,000	109,000	55,000	30,000	---	---	369	---	
1912	125	---	4,383,000	113,000	125,000	71,000	27,000	---	---	384	4	
1913	133	---	4,594,000	125,000	131,000	86,000	59,000	---	---	383	4	
1914	138	---	4,935,000	96,000	150,000	115,000	39,000	---	---	454	4	
1915	159	111,124	6,236,000	195,000	172,000	121,000	59,000	---	---	465	6	
1916	225	143,766	8,977,000	264,000	231,000	192,000	77,000	---	---	495	8	
1917	276	169,520	10,000,000	321,000	290,000	193,000	117,000	---	---	518	12	
1918	302	178,105	7,348,000	136,000	340,000	245,000	44,000	---	---	538	12	
1919	361	186,921	11,126,000	386,000	410,000	266,000	184,000	---	---	502	12	
1920	386	192,401	14,613,000	---	449,000	33,000	15,000	150	161,096	485	11	
1921	379	181,405	14,866,000	---	454,000	47,000	16,000	145	148,726	473	11	
1922	383	173,635	12,102,000	1,199,000	563,000	31,000	---	141	137,264	450	11	

1 Loss.

Norway⁷

Consumers' Societies

AT THE end of 1922, there were in Norway 823 consumers' societies. The 436 societies which rendered reports had a combined membership of 109,521, a business for the year of 133,388,900 kroner,⁸ and a net surplus saving of 4,599,400 kroner.

The National Cooperative Union of Norway, which acts also as the wholesale society for the consumers' movement, had a business during 1923 of 23,954,644 kroner as compared with 20,745,181 kroner in 1922. Savings deposited by members amounted to 4,075,000 kroner in 1923 as against 3,200,000 kroner in 1922.

The insurance society "Samvirke" has, in the two years it has been functioning, issued 5,800 policies amounting to 63,000,000 kroner.

Agricultural Societies

The table below shows, for each type of agricultural society in Norway, the amount of business done during the years 1919 to 1922:

AMOUNT OF BUSINESS OF NORWEGIAN AGRICULTURAL COOPERATIVE SOCIETIES, 1919 TO 1922, BY TYPE OF SOCIETY

[Krone at par=26.8 cents. Exchange rate varies]

Type of society	1919	1920	1921	1922
	<i>Kroner</i>	<i>Kroner</i>	<i>Kroner</i>	<i>Kroner</i>
Central joint-purchase societies.....	58,665,624	62,568,077	47,332,740	37,932,527
Dairies.....	80,403,040	100,545,100	97,118,200	98,585,329
Slaughterhouses.....	10,745,828	13,266,012	14,151,722	14,881,511
Marketing societies:				
Agricultural products.....	6,008,564	8,476,274	4,670,310	3,467,250
Eggs.....	93,032	595,531	607,389	670,145
Timber.....	8,713,780	10,715,600	¹ 10,715,600	761,450
Fruit.....		162,942	¹ 162,900	¹ 162,900
Fish.....		953,016	1,120,000	1,131,088

¹ 1920 figure. No later report available.

There are seven of the central joint purchasing societies represented in the above table. These societies have in affiliation 2,578 local societies with a combined membership of 81,441 individuals. The dairies represented number 472. There are in Norway only seven societies whose business is the marketing of general agricultural products. The number of cooperative slaughterhouses is not available; the membership of those included in the above table numbered 25,047.

Switzerland⁹

THE 1923 report of the Swiss Union of Consumers' Cooperative Societies (the V. S. K.) states that the revival of industry and agriculture, the increase in the number of tourists, and the decrease in unemployment are indications of a gradual return to prosperity which are reflected in the cooperative movement. In spite of the fact that several member societies failed during the year—12 societies, as against 9 new societies which were admitted to membership in the

⁷ Data are from Norway, Departementet for sociale saker, Sociale Meddelelser, No. 8, 1923, pp. 182-189; and Norges Kooperative Landsforening, Kooperatøren (Christiania), January, 1924.

⁸ Krone, at par=26.8 cents. Exchange rate varies.

⁹ The data on which this section is based are from Verband schweiz. Konsumvereine (V. S. K.), Rapports et Comptes concernant l'activité des organes de l'Union en 1923, Basel, 1924; and Switzerland, Bureau de Statistique, Statistisches Jahrbuch der Schweiz, 1922, Berne, 1923, p. 80.

union—the report states: “We can declare, in spite of the regrettable disappearance of these societies, that in the aggregate, the cooperative movement has surmounted the postwar difficulties, and we are happy to state that the great majority of our affiliated societies are constructed on a solid financial foundation and are equal to their task.”

The following table shows the development of the union, by five-year periods, since 1893:

DEVELOPMENT OF SWISS COOPERATIVE UNION, 1893 TO 1923

[Franc at par=19.3 cents. Exchange rate varies]

Year	Number of affiliated societies	Share capital	Reserve fund	Value of fixed property	Value of products manufactured	Amount of sales	Net surplus savings for year
		<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>
1890.....	43						
1893.....	38	3,700				386,524	888
1899.....	105	34,800	41,010	51,222		3,306,295	31,048
1904.....	175	50,400	150,000	354,000		7,673,238	85,634
1909.....	311	108,200	310,000	1,280,000		21,402,530	99,539
1914.....	396	148,200	1,350,000	1,850,000	9,020,131	45,717,077	351,279
1919.....	476	1,428,600	2,800,000	2,908,000	17,825,648	141,441,837	814,608
1922.....	519	1,569,600	3,150,000	3,410,001	16,714,537	118,421,507	310,028
1923.....	516	1,569,400	3,500,000	3,580,001		119,519,480	545,094

Of the capital of 1,569,400 francs¹⁰ shown for 1923 in the table above, 1,550,840 francs had been paid in at the end of the year. Deposits of member societies amounted to 7,551,291 francs. Of the total sales of the union during the year, 114,164,937 francs represents goods sold to affiliated societies, while the remainder, 5,354,543 francs, represents goods sold to others.

In the following table are shown similar statistics for the societies affiliated with the Swiss Cooperative Union, for the period 1913 to 1922:

DEVELOPMENT OF SOCIETIES AFFILIATED WITH SWISS COOPERATIVE UNION, 1913 TO 1922

[Franc at par=19.3 cents. Exchange rate varies]

Year	Number of affiliated societies	Number of members	Share capital	Reserve fund	Amount of business	Net surplus savings for year	Amount returned in dividends on purchases
			<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>
1913.....	387	263,034	4,855,645	11,213,262	131,022,135	10,432,304	8,704,974
1914.....	396	275,710	4,968,556	11,860,104	142,637,189	10,850,123	8,895,446
1915.....	407	286,040	5,319,701	12,509,614	134,242,959	9,077,847	7,600,571
1916.....	421	305,761	5,859,662	13,686,394	157,490,242	9,849,159	7,962,982
1917.....	435	326,476	6,529,406	15,460,019	196,540,714	12,064,193	9,298,844
1918.....	461	342,548	7,066,399	17,438,493	240,333,413	13,356,956	10,202,117
1919.....	476	354,546	7,948,059	19,168,345	293,162,854	15,670,672	12,600,778
1920.....	493	363,420	8,604,460	19,628,812	325,857,261	16,549,780	13,996,501
1921 ¹	505	369,074	8,930,614	18,965,911	337,366,085	14,455,218	12,510,842
1922 ¹	519*	363,478	9,274,661	19,089,384	274,129,268	12,862,094	11,086,328

¹ Subject to revision.¹⁰ Franc, at par=19.3 cents. Exchange rate varies.

STRIKES AND LOCKOUTS

Strikes and Lockouts in the United States, 1916 to 1923

DURING the past 10 years the United States Bureau of Labor Statistics has kept a record of such strikes in this country as have come to its attention. The bureau has no authority to require reports relative to strikes from anyone, and therefore is obliged to obtain its information in such ways as it can and from such sources as are available. This information has been obtained chiefly from the following sources: Labor papers and trade-union journals; trade periodicals; lists of strikes issued by labor, trade, and other organizations; clipping bureaus; daily newspapers published in the more important industrial cities of the country; reports from the Conciliation Service of the United States Department of Labor, and from State labor boards; and reports sent in by agents of this bureau. The bureau follows up the report of a strike by sending a questionnaire or schedule of inquiry to one or both of the parties to the dispute whenever this is feasible.

During the year 1923, 2,629 circulars of inquiry asking for information in regard to reputed strikes and lockouts were sent to employers reported to have had strikes in their establishments and to officials of unions concerned in or believed to have knowledge of such labor disputes. Of this number, 1,131, were returned answered in whole or in part, 123 were returned undelivered for various reasons, and the remainder were unanswered. In addition 250 letters were sent.

While the present report, based on the data secured from the above-mentioned sources, omitting such reputed strikes as the returned schedules of inquiry indicated had been erroneously reported, is not based on a complete list of all strikes that have occurred in the country during the years under review, for such a list is unobtainable, it is believed that no strikes of importance have failed to come to the attention of the bureau and that the report is reasonably complete. Accuracy as to details is not always possible, since it is necessary at times to use approximations where reports are conflicting or lack precision.

Revised statistics for the labor disputes, resulting in strikes and lockouts during each of the years 1916 to 1923 are given for purposes of comparison.

In this report, as in the report on "strikes and lockouts" during 1922, no distinction is drawn, for statistical purposes, between a "strike" and a "lockout." In tabulating labor or industrial disputes resulting in a cessation of work it has not infrequently happened that the strike and lockout definitions overlapped, and that as to such disputes it was necessary to make a distinction which was more or less arbitrary or artificial in order to tabulate "strikes" and "lockouts" separately. Of course the question of intent or motive is a

vital one, and the information in the possession of the bureau is not always sufficiently definite or accurate to enable it to determine this question satisfactorily. It was felt, therefore, that the distinction did not afford a sound basis for a separate classification of such industrial disputes.

The report shows a material increase in the number of strikes in 1923 as compared with the preceding year, but a large decrease in the number of strikers. In fact the number of strikers in 1923 falls short of being 50 per cent of the number in 1922, owing to the large number of strikers involved in the bituminous coal strike and in the railroad shopmen's strike of that year.

Measured by the number of strikers involved, the most important industrial disturbance in 1923 was the strike of 155,000 anthracite coal miners in September, with the check-off and a 20 per cent wage increase as the main grounds of dispute. This strike was settled inside of three weeks on the basis of a compromise, the miners securing a wage increase of 10 per cent.

The next largest strike in 1923 was that of about 50,000 clothing workers in New York City during May, for a 10 per cent wage increase. This strike embraced about 2,000 shops, lasted two weeks, and was won by the employees.

Another strike, of less magnitude, occurred in the clothing industry of New York City. This disturbance began February 7 and involved about 200 shops and 18,000 workers, who demanded a 40-hour week and the right of their business agent to visit the shops. A compromise was effected and the strike ended February 26.

Some 17,000 coal miners employed by the Lehigh Coal Co. in 13 collieries at Pittston struck December 8 to 17 on account of various grievances, which were referred to conciliators. Other strikes of anthracite coal miners, following the big strike in September, included one by the 15,000 miners of the Hudson Coal Co. at Scranton, involving 19 collieries. This disturbance, it was reported, resulted from the refusal of the company to meet the grievance committee of the miners. The grievances were submitted to conciliators and the strike ended October 10, after running for only two days.

Table 1 shows the number of disputes beginning in each month, 1916 to 1923.

Table 2 shows the number of disputes beginning in each year, 1916 to 1923, by States and by sections of the country.

TABLE 1.—NUMBER OF DISPUTES BEGINNING IN EACH MONTH, 1916 TO 1923

Year	Number of disputes beginning in—													Total disputes
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated	
1916.....	188	206	204	434	617	354	313	326	252	261	197	149	198	3,799
1917.....	288	211	318	445	463	323	448	360	349	322	257	197	469	4,450
1918.....	191	223	312	321	392	296	288	278	212	145	208	250	237	3,353
1919.....	199	198	192	270	431	322	379	412	406	327	160	125	156	3,577
1920.....	227	192	280	414	414	310	298	264	230	192	106	108	264	3,299
1921.....	238	172	194	292	573	152	167	143	123	90	92	76	70	2,382
1922.....	131	94	75	107	102	59	92	94	81	62	62	40	81	1,080
1923.....	64	70	112	205	238	130	143	103	90	114	62	52	108	1,491

TABLE 2.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, 1916 TO 1923, BY STATES AND SECTIONS

State and section	Number of disputes beginning in—							
	1916	1917	1918	1919	1920	1921	1922	1923
Alabama.....	15	20	13	18	25	15	4	6
Alaska.....	3	5	3	3	1	1		
Arizona.....	7	20	4	7	9	4	1	1
Arkansas.....	20	36	11	7	15	7	2	2
California.....	55	112	94	102	120	97	37	46
Canal Zone.....	4			1	1			
Colorado.....	17	48	32	31	22	27	7	3
Connecticut.....	326	178	92	135	128	61	25	43
Delaware.....	12	17	14	11	10	4	1	1
District of Columbia.....	8	14	13	10	14	5		
Florida.....	9	16	20	30	9	19	5	4
Georgia.....	8	28	40	39	29	21	3	4
Hawaii.....	4	1	1		1			
Idaho.....	5	32	10	10	5	3		1
Illinois.....	159	282	248	267	254	164	61	70
Indiana.....	75	73	76	106	99	61	15	34
Iowa.....	26	65	41	57	47	42	15	14
Kansas.....	15	53	41	45	14	21	4	4
Kentucky.....	13	38	19	26	22	17	10	9
Louisiana.....	8	39	23	51	37	29	8	14
Maine.....	30	40	56	40	22	24	11	7
Maryland.....	48	59	72	41	57	27	12	18
Massachusetts.....	383	353	347	396	377	201	138	215
Michigan.....	71	64	60	84	63	71	18	18
Minnesota.....	30	53	40	49	50	45	8	14
Mississippi.....	4	13	5	2	4	9		1
Missouri.....	97	122	105	69	63	54	26	27
Montana.....	15	77	33	23	16	21	2	7
Nebraska.....	21	28	11	17	12	11	3	1
Nevada.....		2	7	5	4	1	3	1
New Hampshire.....	20	20	17	34	32	6	30	5
New Jersey.....	417	227	138	183	145	125	65	73
New Mexico.....		4	2	4	1	2		
New York.....	592	711	689	536	600	384	190	379
North Carolina.....	8	7	14	22	21	26	6	5
North Dakota.....		2	3		4	8	2	1
Ohio.....	290	279	197	237	206	167	72	61
Oklahoma.....	24	35	19	32	24	29	9	2
Oregon.....	23	58	18	38	22	23	8	13
Pennsylvania.....	574	494	311	280	250	222	99	232
Porto Rico.....	23	6	5	5	6	2	22	
Rhode Island.....	77	105	53	78	89	42	37	25
South Carolina.....	5	7	3	11	5	12	2	1
South Dakota.....		3	3	3	5	3		
Tennessee.....	26	42	26	40	27	28	8	7
Texas.....	28	56	41	50	73	64	10	14
Utah.....	3	21	14	22	14	5	1	1
Vermont.....	10	8	9	14	12	2	13	
Virginia.....	16	35	37	28	31	14	5	3
Virgin Islands.....						1		
Washington.....	58	294	130	113	69	63	22	36
West Virginia.....	40	64	50	63	49	28	8	28
Wisconsin.....	63	57	54	77	68	41	21	8
Wyoming.....		2	5	4	6	4		1
Interstate.....	4	25	4	21	10	19	27	23
Total.....	3,789	4,450	3,353	3,577	3,290	2,382	1,080	1,401
North of the Ohio and east of the Mississippi.....	3,186	3,034	2,466	2,678	2,431	1,607	811	1,196
South of the Ohio and east of the Mississippi.....	174	315	248	284	234	189	88	68
West of the Mississippi.....	425	1,076	635	594	624	567	154	235
Interstate.....	4	25	4	21	10	19	27	23

The usual increase in the number of strikes during the months of April and May of each year may be ascribed to increased industrial activity at that time of the year, and to the fact that trade agreements in many industries terminate then, giving rise to controversies over wages, etc., in making new agreements.

Data for the closing months of the year 1923 are more or less incomplete, because some reports do not reach the bureau until several months after the strike has ended.

More than half the total number of strikes in 1923 occurred in the three States of New York, Pennsylvania, and Massachusetts, in the order named.

As to the number of strikes by cities, New York City heads the list with 273, followed by Chicago with 44, Boston with 42, and Philadelphia with 30.

Table 3 shows the number of disputes in cities having 25 or more disputes during any year, 1916 to 1923.

TABLE 3.—NUMBER OF DISPUTES IN CITIES IN WHICH 25 OR MORE OCCURRED IN ANY YEAR, 1916 TO 1923

City	1916	1917	1918	1919	1920	1921	1922	1923
Baltimore, Md.	39	36	47	26	34	22	9	14
Boston, Mass.	62	87	68	98	51	43	22	42
Bridgeport, Conn.	38	30	13	25	10	2	3	2
Buffalo, N. Y.	41	28	24	20	47	20	8	7
Chicago, Ill.	73	123	100	126	125	89	24	44
Cincinnati, Ohio	29	33	26	39	31	18	10	10
Cleveland, Ohio	60	76	39	47	41	26	21	11
Denver, Colo.	8	26	19	22	15	16	2	2
Detroit, Mich.	31	19	18	40	24	39	12	13
Fall River, Mass.	20	13	18	28	22	10	8	3
Hartford, Conn.	28	21	8	17	19	2	1	
Holyoke, Mass.	26	9	17	18	15	3	1	8
Jersey City, N. J.	28	24	7	25	14	9	9	5
Kansas City, Mo.	20	36	20	16	13	17	9	6
Lynn, Mass.	8	8	22	11	27	12	14	10
Milwaukee, Wis.	30	14	11	27	28	9	11	4
Newark, N. J.	55	50	36	33	16	23	6	12
New Orleans, La.	7	23	20	40	29	23	7	11
New York, N. Y.	363	484	484	370	341	193	129	273
Paterson, N. J.	18	27	20	15	12	17	14	16
Philadelphia, Pa.	74	89	80	60	59	61	20	30
Pittsburgh, Pa.	47	37	19	19	15	23		5
Providence, R. I.	21	46	18	31	32	17	6	5
Rochester, N. Y.	16	27	35	13	37	36	17	12
San Francisco, Calif.	23	37	30	34	26	22	7	14
St. Louis, Mo.	58	53	70	39	40	26	11	19
Seattle, Wash.	15	49	29	24	26	21	5	14
Springfield, Mass.	31	27	12	20	27	6	6	10
Toledo, Ohio	16	16	27	24	20	15	3	7
Trenton, N. J.	25	15	11	4	21	5	1	3
Wilkes-Barre, Pa.	6	25	8	4	9	10	7	12
Worcester, Mass.	18	12	11	28	18	12	2	9
Youngstown, Ohio	27	1	5	14	4	6	4	4

Table 4 shows, by sex of persons involved, the number of disputes beginning in each year, 1916 to 1923.

TABLE 4.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, 1916 TO 1923, BY SEX OF EMPLOYEES

Sex	Number of disputes beginning in—							
	1916	1917	1918	1919	1920	1921	1922	1923
Males	3,121	3,611	2,467	2,818	2,347	1,747	670	964
Females	122	158	90	88	78	30	22	30
Males and females	269	190	278	521	343	558	333	406
Not reported	277	491	518	150	531	47	55	91
Total	3,789	4,450	3,353	3,577	3,299	2,382	1,080	1,491

The table following shows for each year the relation to labor unions of workers engaged in disputes.

TABLE 5.—RELATION OF WORKERS TO LABOR UNIONS, 1916 TO 1923

Relation of workers to unions	Number of disputes							
	1916	1917	1918	1919	1920	1921	1922	1923
Connected with unions	2,458	2,392	1,903	2,030	2,502	2,036	¹ 813	² 1,213
Not connected with unions	446	209	362	143	137	62	37	77
Organized after dispute	71	55	26	30	8	5	5	18
Not reported	814	1,794	1,062	1,374	652	279	209	154
Total	3,789	4,450	3,353	3,577	3,299	2,382	¹ 1,064	² 1,462

¹ Not including 12 disputes which included both union and nonunion workers and 4 in which the strikers withdrew from the unions after the strike began.

² Not including 29 disputes which included both union and nonunion workers in 2 of which the nonunion strikers joined unions after the dispute began.

The principal causes of strikes are shown in Table 6.

TABLE 6.—PRINCIPAL CAUSES OF DISPUTES BEGINNING IN EACH YEAR, 1916 to 1923

Cause of dispute	Number of disputes beginning in—							
	1916	1917	1918	1919	1920	1921	1922	1923
Increase of wages.....	1,301	1,571	1,397	1,074	1,328	120	151	436
Decrease of wages.....	35	36	36	86	147	896	258	43
Wages, not otherwise specified.....							29	78
Nonpayment of wages.....	13	18	31	11	20	5	10	3
Increase of hours.....	7	18	6	25	8	18	12	4
Decrease of hours.....	113	132	79	117	62	294	21	13
Increase of wages and decrease of hours.....	481	378	256	578	209	34	16	57
Decrease of wages and increase of hours.....						77	40	
Recognition of union.....	349	292	179	350	123	53	65	91
Recognition and wages.....	96	132	79	78	87	106	10	35
Recognition and hours.....	20	27	16	16	6	14	3	6
Recognition, wages, hours.....	56	48	49	76	45	11	7	25
General conditions.....	59	104	61	70	82	71	63	70
Conditions and wages.....	58	71	54	62	58	43	33	52
Conditions and hours.....	3	18	2	5	2	7		4
Conditions, wages, and hours.....	25	26	8	37	43	7	4	6
Conditions and recognition.....	4	13	7	14	6	6	4	6
Discharge of foreman demanded.....	17	38	54	19	30	7	7	6
Discharge of employees.....	127	208	138	144	140	38	36	71
Employment of nonunion men.....	73	79	60	12	38	24	9	30
Objectionable persons hired.....	1	8	2	11	22	16	8	12
Discrimination.....	9	12	32	52	34	12	8	7
Open or closed shop.....	13	22	45	42	113	88	48	52
Closed shop and other causes.....	42	19	17	128	72	48	11	1
Unfair products.....	7	9	1	5	30	27	16	7
In regard to agreement.....	40	84	46	50	59	68	73	199
New agreement.....	40	24	4	36	11	33	11	45
Sympathy.....	33	71	35	107	63	36	32	31
Jurisdiction.....	19	21	16	16	20	10	10	13
Unsatisfactory food.....	4	11	1	8	2			1
Miscellaneous.....	116	168	181	100	74	51	22	95
Not reported.....	631	792	461	248	305	162	63	81
Total.....	3,780	4,450	3,353	3,577	3,299	2,382	1,080	1,491

The number of persons involved in disputes is shown in Table 7, by classified groups.

TABLE 7.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, 1916 TO 1923, BY CLASSIFIED NUMBER OF PERSONS INVOLVED

Number of persons involved	Number of disputes beginning in—							
	1916	1917	1918	1919	1920	1921	1922	1923
1 to 10.....	210	171	152	182	154	257	79	118
11 to 25.....	355	304	279	288	311	336	121	170
26 to 50.....	427	350	343	346	333	287	145	195
51 to 100.....	420	361	357	395	349	252	153	145
101 to 250.....	399	368	384	484	358	243	142	156
251 to 500.....	354	287	287	352	275	184	87	133
501 to 1,000.....	241	194	143	215	142	102	61	78
1,001 to 10,000.....	238	223	204	332	181	133	61	117
Over 10,000.....	23	68	17	54	19	15	16	5
Not reported.....	1,122	2,124	1,187	929	1,177	593	215	374
Total.....	3,780	4,450	3,353	3,577	3,299	2,382	1,080	1,491

Table 8 shows the number of disputes for which the number of employees directly involved was reported, the number of such employees, and the average number of employees per dispute.

TABLE 8.—NUMBER OF DISPUTES FOR WHICH THE NUMBER OF EMPLOYEES WAS REPORTED, NUMBER OF EMPLOYEES, AND AVERAGE NUMBER OF EMPLOYEES PER DISPUTE, BY YEARS, 1916 TO 1923

Year	Disputes	Employees	Average number of employees per dispute
1916.....	2,667	1,599,917	600
1917.....	2,325	1,227,254	528
1918.....	2,151	1,239,989	576
1919.....	2,612	4,154,733	1,591
1920.....	2,114	1,441,381	682
1921.....	1,782	1,008,347	616
1922.....	862	1,607,894	1,865
1923.....	1,117	743,569	666

The following statement shows, by months, the number of persons directly involved in disputes for 1923, so far as reported:

January.....	18,130
February.....	66,901
March.....	51,407
April.....	71,153
May.....	118,431
June.....	47,207
July.....	32,682
August.....	25,660
September.....	186,353
October.....	50,157
November.....	32,512
December.....	27,802
Month not stated.....	15,174

Total..... 743,569

Table 9 shows, for each year, 1916 to 1923, the number of labor disputes occurring in the industries named.

TABLE 9.—NUMBER OF DISPUTES IN SPECIFIED INDUSTRY GROUPS, 1916 TO 1923

Industry	Number of disputes							
	1916	1917	1918	1919	1920	1921	1922	1923
Building trades.....	394	468	434	468	511	583	113	206
Clothing industry.....	227	495	436	317	336	240	215	357
Furniture industry.....	50	43	26	35	25	17	4	12
Iron and steel workers.....	72	56	74	76	25	25	10	10
Leather workers.....	34	19	16	27	32	26	17	17
Lumber industry.....	44	299	76	46	38	25	10	18
Metal trades.....	547	515	441	581	452	194	82	106
Mining.....	416	449	208	176	183	95	49	157
Paper manufacturing.....	54	41	40	47	30	42	12	15
Printing and publishing.....	27	41	40	71	83	506	56	19
Ship building.....	31	106	140	109	45	20	4	6
Slaughtering, meat cutting, and packing.....	70	38	42	73	42	30	6	11
Stone work.....	61	26	14	13	29	32	60	15
Textile industry.....	261	247	212	273	211	114	115	133
Tobacco.....	63	47	50	56	34	19	12	16
Transportation, steam and electric.....	228	343	227	186	238	36	67	9

Table 10 shows the number of disputes which have occurred in certain specified occupations for each year, 1916 to 1923.

TABLE 10.—NUMBER OF DISPUTES IN SPECIFIED OCCUPATIONS, BY YEARS, 1916 TO 1923

Occupation	Number of disputes							
	1916	1917	1918	1919	1920	1921	1922	1923
Bakers.....	81	106	47	82	64	99	24	34
Boiler makers.....	23	44	28	31	22	16	4	8
Boot and shoe workers.....	45	38	50	54	63	28	55	53
Brewery workers.....	21	22	27	23	25	24	12	4
Brick and tile workers.....	23	9	5	16	21	12	14	6
Building laborers and hod carriers.....	54	74	27	49	90	10	7	39
Carpenters.....	75	101	81	95	73	49	20	22
Chauffeurs and teamsters.....	108	164	129	95	130	43	20	50
Freight handlers and longshoremen.....	158	194	89	56	60	36	18	25
Glass workers.....	41	23	13	9	11	2	4	12
Hat and cap makers and fur workers.....	26	52	38	37	51	25	39	25
Inside wiremen.....	32	33	45	33	51	29	7	9
Machinists.....	257	204	207	202	127	29	7	13
Metal polishers.....	43	25	29	61	78	8	3	1
Miners, coal.....	373	355	162	148	161	87	44	156
Molders.....	145	165	110	181	145	93	38	53
Painters and paper hangers.....	46	45	61	81	46	62	10	20
Plumbers and steam fitters.....	53	53	72	55	81	82	21	25
Rubber workers.....	38	19	15	15	14	3	3	7
Sheet-metal workers.....	23	33	45	19	14	82	8	13
Street-railway employees.....	56	118	117	110	81	12	19	21
Structural-iron workers.....	23	16	20	15	32	5	6	18
Tailors.....	38	59	51	69	42	58	19	31

The following table shows, so far as reported, the distribution of disputes according to the number of establishments involved in each dispute, by years, 1917 to 1923:

TABLE 11.—NUMBER OF ESTABLISHMENTS INVOLVED IN DISPUTES, 1917 TO 1923

Establishments involved	Number of disputes						
	1917	1918	1919	1920	1921	1922	1923
One establishment.....	3,078	2,541	2,136	1,989	1,070	716	1,075
Two establishments.....	143	70	142	86	113	28	56
Three establishments.....	73	42	99	59	94	17	34
Four establishments.....	41	23	59	40	62	17	15
Five establishments.....	18	90	52	35	43	9	10
Over five establishments.....	403	327	910	426	583	103	101
Total.....	3,756	3,093	3,398	2,635	1,965	890	1,291

Table 12 shows the number of disputes ending in each month, 1916 to 1923.

TABLE 12.—NUMBER OF DISPUTES ENDING IN EACH MONTH, 1916 TO 1923

Year	Number of disputes ending in—													Total disputes
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated	
1916.....	117	132	176	292	337	216	200	217	223	173	156	78	131	2,448
1917.....	111	94	159	198	223	172	157	156	201	177	122	132	172	2,074
1918.....	105	125	168	208	261	223	211	207	175	147	117	166	85	2,198
1919.....	122	113	128	144	226	195	207	252	239	194	147	120	80	2,167
1920.....	84	85	129	197	200	188	191	157	155	117	72	60	125	1,760
1921.....	64	61	106	102	222	171	144	141	91	81	65	46	232	1,526
1922.....	42	39	37	37	76	47	50	62	66	55	59	52	89	711
1923.....	26	51	67	140	177	111	117	80	82	92	52	35	62	1,092

In Table 13 are given the data relative to the results of disputes ending in each year, 1916 to 1923.

TABLE 13.—RESULTS OF DISPUTES ENDING IN EACH YEAR, 1916 TO 1923

Result	Number of disputes ending in—							
	1916	1917	1918	1919	1920	1921	1922	1923
In favor of employers.....	748	395	465	680	650	701	242	356
In favor of employees.....	749	631	627	583	397	256	237	364
Compromised.....	777	720	691	797	448	291	104	167
Employees returned pending arbitration.....	73	137	204	50	61	80	16	46
Not reported.....	101	191	211	57	204	198	112	159
Total.....	2,448	2,074	2,198	2,167	1,760	1,526	711	1,092

The approximate total duration of 2,116 disputes ending in 1916 for which duration was reported was 49,680 days, or an average duration of 23 days each. In 1917 the total duration of 1,435 such disputes was 26,981 days, or an average duration of 19 days each. In 1918 the total duration of 1,709 disputes was 29,895 days, or an average of 17 days each. In 1919 the total duration of 1,855 disputes was 62,930 days, or an average of 34 days each. In 1920 the total duration of 1,321 disputes was 51,893 days, or an average duration of 39 days each. In 1921 the total duration of 1,258 disputes was 64,231 days, or an average duration of 51 days each. In 1922 the total duration of 552 disputes was 21,017 days, or an average of 38 days each. In 1923 the total duration of 917 disputes was 21,406 days, or an average of 23 days each.

Table 14 shows the duration of disputes ending in each year, 1916 to 1923, by classified periods of duration.

TABLE 14.—DISPUTES ENDING IN EACH YEAR, 1916 TO 1923, BY CLASSIFIED PERIODS OF DURATION

Duration	Number of disputes ending in—							
	1916	1917	1918	1919	1920	1921	1922	1923
Less than 1 day.....	38	88	84	29	31	32	16	25
1 day.....	141	196	145	76	57	27	47	82
2 days.....	185	113	171	70	64	44	37	70
3 days.....	147	105	127	80	54	44	24	64
4 days.....	125	62	111	78	51	47	23	60
5 days.....	131	56	72	74	36	35	26	32
6 days.....	112	65	67	45	44	32	18	40
7 days.....	93	95	115	69	66	45	31	60
8 days.....	86	29	60	72	45	30	19	23
9 days.....	50	31	38	33	30	19	8	26
10 days.....	108	43	58	57	31	44	14	19
11 days.....	41	24	24	30	28	19	4	14
12 days.....	42	39	26	28	24	12	6	16
13 days.....	27	13	17	30	21	14	10	32
14 days.....	64	40	49	42	40	25	9	34
15 to 18 days.....	148	75	88	113	83	76	39	53
19 to 21 days.....	83	46	72	95	25	49	27	38
22 to 24 days.....	40	23	40	51	41	16	12	12
25 to 28 days.....	61	35	32	65	56	31	9	32
29 to 31 days.....	53	28	65	74	47	43	8	33
32 to 35 days.....	25	27	31	61	21	36	13	20
36 to 42 days.....	50	38	39	81	46	54	12	12
43 to 49 days.....	24	29	36	78	48	40	14	11
50 to 63 days.....	53	37	48	124	69	86	29	23
64 to 77 days.....	40	22	18	72	51	60	16	23
78 to 91 days.....	27	12	17	57	41	61	14	15
92 to 199 days.....	99	55	35	149	125	186	51	20
Over 200 days.....	23	9	24	22	46	51	15	18
Not reported.....	332	639	489	312	439	268	160	175
Total.....	2,448	2,074	2,198	2,167	1,760	1,526	711	1,092

Included in the above table as "not reported" are some disputes that were known or believed to be terminated, although the period of duration was unknown for various reasons. In some cases the strikes were reported as "short," in others the places of the strikers were filled soon after the trouble occurred, and the work became normal in a few days. In some instances the establishments were reported as running open shop or at capacity.

In 1917 the number of unauthorized strikes of which the bureau has information was 72, and in 1918, 58. In 1919 the number was 125, involving 1,053,256 strikers; in 1920 the number was 253, involving 850,837; in 1921 the number was 52, involving 66,804; in 1922 the number was 20, involving 1,846; and in 1923 the number was 25, involving 36,221 employees. Between April 6, 1917, the date of the entrance of the United States into the war, and November 11, 1918, the date of the signing of the Armistice, 6,205 strikes and lockouts occurred.

Strikes and Lockouts in Belgium in 1923

A SUMMARY of the strikes and lockouts occurring in Belgium during the year 1923, classified by industries and by causes, is given in the Belgian *Revue du Travail*, for February, 1924 (pp. 256-258).

There were 164 strikes settled during the year, which affected 111,220 workers, 104,980 of whom were strikers, the remainder, 6,240, being forced out of employment by the strikes. During the same period there were 4 lockouts, affecting 21,298 workers. The 164 strikes involved 1,026 establishments and the 4 lockouts 355.

The following table shows the number of strikes occurring in the various industries, the number of establishments affected, the number of strikers, and the number of other workers unemployed because of the strikes:

STRIKES IN BELGIUM DURING 1923, BY INDUSTRIES

Industry	Number of strikes	Number of establishments affected	Number of workers involved		Industry	Number of strikes	Number of establishments affected	Number of workers involved	
			Directly	Indirectly				Directly	Indirectly
Building.....	8	25	547	-----	Mines.....	5	42	46,540	531
Chemical.....	11	12	2,293	7	Paper.....	3	14	459	-----
Clothing.....	12	71	1,302	27	Pottery.....	10	32	2,638	33
Commerce.....	2	2	21	-----	Quarries.....	8	11	1,380	32
Food.....	3	12	733	-----	Textile.....	30	271	14,383	5,394
Glass.....	1	1	99	100	Tobacco.....	3	145	4,142	-----
Hides and skins.....	13	53	1,728	-----	Transport.....	19	57	20,513	5
Instruments of precision.....	1	80	1,500	-----	Wood and furniture.....	16	125	2,247	4
Metal.....	29	73	4,455	107	Total.....	164	1,026	104,980	6,240

¹ Includes 2 strikes in which the number of establishments is not reported.

The most important cause of strikes was demands for wage increases, which caused 122 of the strikes and involved 97,063 workers. The causes next in importance were protests against the dismissal of workers and demands for reinstatement of discharged workers, which resulted in 20 strikes with 3,005 strikers, and the

question of labor organization, which caused 12 strikes and involved 3,645 workers. Of the remaining 10 disputes affecting 1,267 workers, 1 was caused by the dismissal of a foreman, 1 was a sympathetic strike, and the others involved the length of the working-day, trade-union questions, and the labor contract. The four lockouts followed refusal to grant increases in wages.

Forty-six strikes, with 9,767 strikers, were settled in favor of the workers, 51, with 22,861 strikers, in favor of the employers, and 67 strikes, with 72,352 strikers, resulted in a compromise. One lockout involving 16,000 workers ended in success for the employers, and the other three were ended by a compromise.

Labor Disputes in Denmark in 1923

STATISTISKE Efterretninger for April 4, 1924, contains information on labor disputes in Denmark in 1923 secured by the Statistical Department through questionnaires sent to employer and employee organizations reported as affected by the disputes.

Only actual strikes and lockouts were included, while boycotts, sudden discharge of employees, and disputes lasting less than one day, etc., were omitted, since complete data were not always available relative to these disputes.

In accordance with the provisions of the general agreement of April 4, 1922, which ended that year's general strike, most of the labor contracts concluded in 1922 for a term of one year were extended during the summer of 1922 for one more year so that most of these agreements would then expire in the spring of 1924. Consequently the question of concluding new agreements in 1923 affected but a few trades and most of these succeeded in concluding agreements without any controversies.

The number of work stoppages therefore was small, only 58 being reported, all of very small extent. All of these disputes were strikes except one, for which the nature of the dispute was not determined. Of the 58 disputes 46 concerned only one employer, and only 2 concerned a large number, namely, 60 and 46, respectively. Twelve disputes involved from 1 to 5 workers, 25 from 6 to 25 workers, 17 from 25 to 100 workers, and 3 involved 380, 260, and 202 workers, respectively. Of the 58 disputes, 36 lasted less than 1 week, 14 lasted from 1 to 2 weeks, and the other 8 work stoppages lasted at the most 6 weeks, so that in 1923 there was no dispute which lasted very long. The total number of workers involved in disputes in 1923 was about 2,000.

The number of days lost in 1923 by the workers directly involved was 19,700, the smallest number of days lost since 1897, when information was first obtained, except in 1903 when 18,500 days were lost because of labor disputes. For the other years only 1912 and 1915 show losses of less than 50,000 days. The largest numbers are shown for 1919 with 900,000 days lost, 1920 and 1921 with each about 1,300,000 days, 1922 with 2,300,000, and 1899 with 2,800,000 working days lost. Work stoppages in 1923 averaged less than 1 hour per organized worker.

Labor Disputes in Finland, 1923

SOCCIAL Tidskrift No. 3, 1924, published by the Ministry of Social Affairs, states (pp. 230-238) that according to reports received from employers and employees there were 50 work stoppages in Finland in 1923, involving 196 employers and 7,588 workers. Of the disputes, 29 were designated as strikes and 3 as lockouts, while 2 were reported as "mixed" disputes. Twenty-three of the disputes were of very small scope, involving at the most 25 workers, and 10 involved over 100 workers, 1 of these affecting over 1,000 employees. The average number of workers per dispute was 151. Half the disputes were of less than 2 weeks' duration, the average duration per dispute being 37.3 days.

In 1923, labor disputes caused a loss of 261,473 working days as against 252,374 during the previous year. The building industry suffered the greatest loss, 42.7 per cent of the total number of working-days lost having occurred in that industry, while machine shops came next with 22.7 per cent. Machine shops showed the highest average loss per worker (136.7 days), while the building industry showed the largest average number of days lost per dispute (27,928).

The building industry led as regards number of workers involved in disputes during the year (3,616), and loading and unloading came next (1,084).

Demands relating to wages were the principal cause of controversy. A majority (33) of the wage disputes were caused by demands for increased wages, while 4 were caused by attempts to decrease wages, and 3 by delay in payment of wages. Less than one-half of the work stoppages terminated in favor of the employers; the disputes thus settled, however, involved only one-fourth of the total number of workers, while about two-thirds of the workers were involved in disputes settled by mutual concessions.

Official conciliation is reported as having taken place in two disputes. In five cases representatives of the workers' organizations acted as conciliators.

In the 28 disputes for which information was secured, 3,115 employees, or 47.8 per cent, were affiliated with the labor organizations. In 22 of the 42 instances for which reports were available one or more employers were affiliated with an employers' association.

CONCILIATION AND ARBITRATION

Conciliation Work of the Department of Labor in April, 1924

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 47 labor disputes during April, 1924. These disputes affected a total of 25,742 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workmen directly and indirectly affected.

On May 1, 1924, there were 48 strikes before the department for settlement and, in addition, 16 controversies which had not reached the strike stage. Total number of cases pending, 64.

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LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, APRIL, 1924

Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement	Duration		Men involved	
					Beginning	Ending	Directly	Indirectly
Aycock Hosiery Mills, South Pittsburgh, Tenn.	Strike	Knitters and carders	Wage cut	Unable to adjust. Refused to meet workers. Overstocked.	1924 Mar. 27	1924 Apr. 11	335	15
Fred Centrel Co., Chattanooga, Tenn.	do	Plumbers and steam fitters	Asked increase of 12½ cents an hour.	Unable to adjust. Conferences unsuccessful.	Apr. 3	do	8	117
Salvin & Thompson Corp., New York City, Greenwich Village.	do	Hotel workers	Nonunion labor	Pending. Mediation declined at this time.	Mar. 24	do	500	---
Packing houses, Scranton, Pa.	Controversy	Packing employees	Wages, hours, and conditions.	Adjusted. Increases, 49-hour week, and 1 year contract.	Mar. 15	Apr. 2	400	300
Glass workers, St. Louis, Mo.	Strike	Glass workers	Asked 44-hour week; 12½ cents an hour increase.	Pending. No progress.	do	do	120	50
Building laborers, St. Louis, Mo.	do	Building laborers	Asked 20 cents an hour increase.	Adjusted. Accepted 7½ cents per hour increase.	Mar. 1	Mar. 29	2,700	---
Painters and decorators, St. Louis, Mo.	do	Painters and decorators	Asked increase and 40-hour week.	Adjusted. Agreed on \$10.40 per day.	Mar. 15	May 5	1,800	---
Hoisting engineers, Indianapolis, Ind.	Controversy	Engineers	Wage controversy	Adjusted. Agreed on former scale, \$1.15 to \$1.25 an hour.	Jan. 1	Mar. 29	60	10
Iron workers, Indianapolis, Ind.	do	Iron workers	do	Adjusted. Agreed on former scale, \$1.25 per hour.	do	do	75	5
Plasterers, Indianapolis, Ind.	do	Plasterers	Asked \$1.50 an hour and 5-day week.	Adjusted. \$1.50 per hour and 6-day week.	do	Mar. 28	100	10
Lathers, Indianapolis, Ind.	do	Lathers	Wage controversy	Adjusted. Agreed on \$1.25 per hour 6-day week.	do	Mar. 28	100	10
Sheet-metal workers, St. Louis, Mo.	do	Sheet-metal workers	do	Adjusted. Accepted 12½ cents an hour increase.	Mar. 25	Apr. 1	400	---
Bayuk Cigar Co., Bethlehem, Pa.	Strike	Cigar makers	Wage cut of \$1 a day	Pending	(1)	do	(1)	---
44-Cigar Co., Bethlehem, Pa.	do	do	do	do	Apr. 1	do	(1)	---
Carpenters, Reading, Pa.	do	Carpenters	Asked increase of 17½ cents an hour.	do	Apr. 5	do	5,200	---
Plumbers and steam fitters, Shamokin, Pa.	do	Plumbers and steam fitters	Asked increase	Adjusted. 15 and 20 cents an hour increase.	Apr. 1	Apr. 7	47	16
Red Lion Cigar District, six towns, Pennsylvania.	do	Cigar makers	Rate of pay for piecework.	Pending	(1)	do	3,000	---
Painters, Trenton, N. J.	do	Painters	\$1.50 day increase and 40-hour week.	Adjusted. All demands granted.	Apr. 1	Apr. 7	350	---
Bricklayers and hod carriers, Terre Haute, Ind.	Controversy	Building trades	Wage scales	Adjusted. Contract for 1 year; 10 cents an hour increase.	do	Apr. 5	110	50
Asbestos workers, Indianapolis, Ind.	Strike	Asbestos workers	Asked 22½ cents an hour increase.	Adjusted. Increase of 10 cents an hour granted.	do	Apr. 12	36	12
Cement finishers, Indianapolis, Ind.	do	Cement finishers	Asked 22 cents an hour increase.	do	do	Apr. 21	40	85
Purdue University, Lafayette, Ind.	do	Bricklayers	Asked \$1.50 per hour	Adjusted. Received \$1.37½ cents an hour.	Apr. 2	Apr. 26	75	35
Painters, Orange, N. J.	do	Painters	Asked increase, from \$9 to \$10 a day.	Adjusted. Demands granted.	Apr. 1	Apr. 7	300	50
Tailors, Scranton, Pa.	Controversy	Tailors	Asked increase and	Adjusted. Increase of \$4 a week and	Mar. 15	Apr. 1	150	65

Cement finishers, Indianapolis, Ind.	do.	Cement finishers	Increase Asked 22 cents an hour increase.	hour granted.	do.	Apr. 21	40	85
Purdue University, Lafayette, Ind.	do.	Bricklayers	Asked \$1.50 per hour	Adjusted. Received \$1.37½ cents an hour.	Apr. 2	Apr. 26	75	35
Painters, Orange, N. J.	do.	Painters	Asked increase, from \$9 to \$10 a day.	Adjusted. Demands granted	Apr. 1	Apr. 7	300	50
Tailors, Scranton, Pa.	Controversy	Tailors	Asked increase and shorter hours.	Adjusted. Increase of \$4 a week and shorter hours.	Mar. 15	Apr. 1	150	65
Mason tenders, Springfield, Mass.	Strike	Mason tenders	Asked 12½ cents an hour increase.	Adjusted. Returned. No increase (87½ cents an hour).	Apr. 10	Apr. 25	300	---
Hudson Coal Co., Plymouth and Larksville, Pa.	do.	Miners	Laborers allege cut of 50 cents a day.	Adjusted. Returned. No cut intended.	Mar. 29	Mar. 31	29	271
Isbell-Porter Co., Buffalo, N. Y.	do.	Building laborers	Asked 20 cents an hour increase; closed shop; 8-hour day.	Refunded. Adjusted. No recognition. 10 cents an hour increase.	Apr. 4	Apr. 15	135	80
Hillside Coal & Iron Co., Avoca, Pa.	do.	Miners	Dispute relative rock contract and coal pillars.	Adjusted. Miners to work coal pillars.	Apr. 8	Apr. 13	849	---
Liberty Baking Co., Pittsburgh, Pa.	do.	Bakers	(¹)	Pending	May 1	---	(¹)	---
Alpha Portland Cement Co., Ironton, Ohio.	do.	Cement workers	Wages, hours, and work conditions.	do.	Mar. 20	---	265	75
Painters, Los Angeles, Calif.	do.	Painters	Asked \$9 a day—\$1 a day increase.	Pending. Strike practically lost	Apr. 1	---	500	---
Plasterers and structural-iron workers, Pittsburgh, Pa.	do.	Building trades	Asked \$13 and \$11 a day and 8-day week.	Adjusted. Plasterers received \$12.50 and iron workers \$11 a day.	Mar. 1	Mar. 31	1,025	---
Teamsters, Portland, Oreg.	Controversy	Teamsters	Asked \$1 a day increase.	Adjusted. 1-year agreement, 25 cents day increase.	Feb. 18	Mar. 11	350	---
Pittsburgh Railways Co., Pittsburgh, Pa.	Strike	Street car men	Asked 10 cents per hour increase.	Adjusted. 2-year contract. Present scale continued. Company made some concessions.	May 10	May 12	3,200	---
Belding Silk Mills, Northampton, Mass.	do.	Weavers	Refusal to operate 3 looms on crêpe	Pending	(¹)	---	50	281
Carpenters, Indianapolis, Ind.	do.	Carpenters	Asked \$1.25 per hour	Adjusted. Received \$1.05 per hour 44-hour week.	Apr. 1	Apr. 18	200	50
Electrical workers, Indianapolis, Ind.	Controversy	Electrical workers	Asked wage increase	Adjusted. Received \$1.25, effective Apr. 1.	do.	Apr. 15	110	10
Montpelier Mfg. Co., Montpelier, Ind.	Strike	Molders	Piecework	Adjusted. Men reemployed as needed	1923, Oct. 30 1924.	Apr. 18	12	4
Utopia Silk Co., Paterson, N. J.	do.	Weavers	Wage cut 15 per cent	Pending. No progress	(¹)	---	29	10
Pearl Silk Co., Paterson, N. J.	do.	do.	Materials delayed	do.	(¹)	---	45	20
Lorain Silk Co., Paterson, N. J.	do.	do.	Wage cut of 20 per cent	do.	(¹)	---	90	40
Brown Lamp Works, Columbus, Ohio.	do.	Metal polishers	Wage cut of 40 cents per day.	do.	(¹)	---	150	300
Grass-Golden Shoe Co., Roxbury, Mass.	Controversy	Shoe workers	Wage rate on piecework	Adjusted. Accepted State board arbitration.	(¹)	Apr. 23	150	---
Bakers, Auburn, N. Y.	Threatened strike.	Bakers	Asked from \$1 to \$6 a week increase.	Adjusted. Received from \$1 to \$4 per week increase.	(¹)	May 1	46	75
52 firms of roofers, St. Louis, Mo.	Strike.	Roofers	Asked increase	Unable to adjust	Apr. 24	---	212	53
Carpenters, Washington, D. C.	Controversy	Carpenters	Asked increase from \$9 to \$10 a day.	Pending	Feb. 1	---	(¹)	---
Bakery salesmen, Washington, D. C.	do.	Bakery salesmen	Proposed cut in weekly wage.	do.	(¹)	---	(¹)	---
Total							23,644	2,098

¹ Not reported.

IMMIGRATION

Statistics of Immigration for March, 1924

By W. W. HUSBAND, COMMISSIONER GENERAL OF IMMIGRATION

THE following tables show the total number of immigrant aliens admitted into the United States and emigrant aliens departed from the United States during March, 1924, and from July, 1923, to March, 1924. The tabulations are presented according to the countries of last permanent or future permanent residence, races or peoples, occupations, and States of future permanent or last permanent residence. The last table (Table 6) shows the number of aliens admitted under the per cent limit act of May 19, 1921, from July 1, 1923, to May 7, 1924.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT, JULY, 1923, TO MARCH, 1924

During—	Arrivals					Departures			
	Immigrant aliens admitted	Nonimmigrant aliens admitted	United States citizens arrived	Aliens debarred	Total arrivals	Emigrant aliens	Non-emigrant aliens	United States citizens	Total departures
July to December, 1923.	499,863	85,336	173,156	16,985	775,340	44,269	75,910	133,600	253,809
January, 1924.	33,878	10,476	15,638	2,145	62,137	5,723	8,689	20,817	35,229
February, 1924.	29,901	10,842	22,161	1,851	64,755	3,706	7,880	24,197	35,783
March, 1924.	35,585	13,271	25,146	2,001	76,003	4,202	7,983	19,474	31,659
Total.	599,227	119,925	236,101	22,982	978,235	57,930	100,462	198,088	356,480

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED TO AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING MARCH, 1924, AND FROM JULY, 1923, TO MARCH, 1924, BY COUNTRIES

Country	Immigrant		Emigrant	
	March, 1924	July, 1923, to March, 1924	March, 1924	July, 1923, to March, 1924
Albania.	6	232	25	203
Austria.	96	7,392	7	143
Belgium.	67	1,859	19	370
Bulgaria.	25	518	12	180
Czechoslovakia.	58	13,302	111	1,111
Denmark.	467	4,587	25	382
Estonia.	37	414	1	5
Finland.	8	3,590	2	221
France, including Corsica.	306	5,589	67	938
Germany.	298	74,076	84	652
Great Britain, Ireland:				
England.	154	23,794	186	3,223
Ireland.	27	16,905	50	916
Scotland.	34	33,269	19	592
Wales.	5	1,512	1	45
Greece.	111	4,379	621	5,499
Hungary.	94	5,403	14	364
Italy (including Sicily and Sardinia).	3,022	49,240	1,069	18,108
Latvia.	7	1,444		58
Lithuania.	24	2,265	16	259
Netherlands.	31	3,644	13	248
Norway.	864	11,390	37	586
Poland.	174	28,313	146	1,859
Portugal (including Azores and Cape Verde Islands).	24	2,586	94	2,714
Rumania.	71	10,931	57	804
Russia.	84	12,368	16	407
Spain (including Canary and Balearic Islands).	47	721	189	2,114
Sweden.	635	18,124	27	539
Switzerland.	40	3,655	27	246
Turkey in Europe.	7	1,430	5	84
Yugoslavia.	111	5,634	117	1,430
Other Europe.	6	310	1	22
Total Europe.	6,949	348,976	3,058	44,322

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED TO AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING MARCH, 1924, AND FROM JULY, 1923, TO MARCH, 1924, BY COUNTRIES—Concluded

Country	Immigrant		Emigrant	
	March, 1924	July, 1923, to March, 1924	March, 1924	July, 1923, to March, 1924
China.....	264	5, 826	358	2, 969
Japan.....	492	3, 871	192	1, 836
India.....	1	134	6	125
Syria, Palestine, and Mesopotamia.....	53	2, 611	32	357
Turkey in Asia.....	15	2, 741	4	157
Other Asia.....	13	251	7	55
Total Asia.....	838	15, 434	599	5, 499
Africa.....	30	833	1	86
Australia, Tasmania, and New Zealand.....	24	569	36	363
Pacific Islands (not specified).....	3	41	1	29
Canada and Newfoundland.....	13, 474	146, 780	139	1, 862
Central America.....	107	1, 316	43	418
Mexico.....	12, 954	66, 104	106	1, 528
South America.....	444	7, 150	61	812
West Indies.....	761	11, 969	158	3, 009
Other countries.....	1	55	---	2
Grand total.....	35, 585	599, 227	4, 202	57, 930

TABLE 3.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING MARCH, 1924, AND FROM JULY, 1923, TO MARCH, 1924, BY RACES OR PEOPLES

Race of people	Immigrant		Emigrant	
	March, 1924	July, 1923, to March, 1924	March, 1924	July, 1923, to March, 1924
African (black).....	545	8, 279	41	940
Armenian.....	60	2, 656	4	36
Bohemian and Moravian (Czech).....	52	6, 607	76	975
Bulgarian, Serbian, and Montenegrin.....	68	2, 327	51	1, 317
Chinese.....	232	3, 519	343	2, 890
Croatian and Slovenian.....	88	3, 989	70	146
Cuban.....	76	1, 002	37	735
Dalmatian, Bosnian, and Herzegovinian.....	5	270	4	141
Dutch and Flemish.....	235	6, 881	44	695
East Indian.....	9	105	3	117
English.....	4, 800	73, 304	300	4, 950
Finnish.....	64	3, 544	3	261
French.....	3, 803	36, 947	82	990
German.....	900	92, 202	123	1, 056
Greek.....	124	4, 688	627	5, 537
Hebrew.....	907	46, 746	22	170
Irish.....	1, 411	36, 019	62	1, 092
Italian (north).....	361	10, 552	140	1, 346
Italian (south).....	2, 842	41, 102	935	16, 894
Japanese.....	480	3, 552	190	1, 806
Korean.....	5	53	1	20
Lithuanian.....	27	1, 890	15	297
Magyar.....	103	6, 930	26	403
Mexican.....	12, 855	64, 681	106	1, 486
Pacific Islander.....	---	11	---	---
Polish.....	225	18, 666	140	1, 882
Portuguese.....	137	3, 356	96	2, 823
Rumanian.....	49	1, 530	53	796
Russian.....	161	8, 664	22	508
Ruthenian (Russniak).....	161	1, 938	10	17
Scandinavian (Norwegians, Danes, and Swedes).....	2, 323	38, 255	115	1, 760
Scotch.....	1, 787	52, 512	51	907
Slovak.....	17	5, 460	27	238
Spanish.....	163	2, 777	226	2, 635
Spanish American.....	185	2, 035	59	642
Syrian.....	54	1, 377	37	337
Turkish.....	6	319	6	218
Welsh.....	98	2, 257	---	58
West Indian (except Cuban).....	107	1, 440	29	486
Other peoples.....	60	785	26	323
Total.....	35, 585	599, 227	4, 202	57, 930
Male.....	22, 687	361, 765	3, 382	43, 894
Female.....	12, 898	237, 462	820	14, 036

TABLE 4.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING MARCH, 1924, AND FROM JULY, 1923, TO MARCH, 1924, BY STATES OR TERRITORIES

State	Immigrant		Emigrant	
	March, 1924	July, 1923, to March, 1924	March, 1924	July, 1923, to March, 1924
Alabama.....	11	397	4	37
Alaska.....	11	229	4	53
Arizona.....	952	10, 179	22	299
Arkansas.....	10	145	2	17
California.....	3, 962	45, 020	431	4, 598
Colorado.....	104	1, 340	20	159
Connecticut.....	456	11, 499	60	1, 156
Delaware.....	2	426	5	15
District of Columbia.....	43	1, 330	4	209
Florida.....	200	3, 014	60	1, 073
Georgia.....	14	383	10	60
Hawaii.....	208	1, 581	44	322
Idaho.....	65	875	5	86
Illinois.....	1, 225	42, 514	221	3, 015
Indiana.....	107	4, 875	26	464
Iowa.....	108	3, 556	18	299
Kansas.....	59	1, 384	2	64
Kentucky.....	19	522	1	32
Louisiana.....	121	1, 100	34	295
Maine.....	1, 049	8, 997	6	84
Maryland.....	68	2, 830	17	196
Massachusetts.....	2, 978	50, 503	288	5, 009
Michigan.....	2, 966	49, 944	151	1, 967
Minnesota.....	408	9, 434	42	497
Mississippi.....	4	448	1	33
Missouri.....	121	4, 094	17	293
Montana.....	95	1, 584	14	152
Nebraska.....	49	2, 313	7	112
Nevada.....	13	209	1	37
New Hampshire.....	578	5, 482	16	77
New Jersey.....	622	28, 863	154	2, 248
New Mexico.....	179	1, 051	4	37
New York.....	5, 421	146, 921	1, 630	22, 289
North Carolina.....	2	241	7	54
North Dakota.....	81	1, 585	10	92
Ohio.....	554	22, 300	136	2, 540
Oklahoma.....	13	452	5	36
Oregon.....	356	5, 042	39	295
Pennsylvania.....	894	44, 594	352	5, 029
Philippine Islands.....		1		
Porto Rico.....	15	200	3	113
Rhode Island.....	343	6, 712	47	1, 098
South Carolina.....	1	136	2	16
South Dakota.....	45	908	9	54
Tennessee.....	6	342	5	37
Texas.....	9, 192	41, 415	56	907
Utah.....	18	974	21	232
Vermont.....	247	2, 453	3	47
Virginia.....	147	1, 864	11	137
Virgin Islands.....	1	10		
Washington.....	1, 173	15, 780	120	1, 180
West Virginia.....	50	1, 884	25	492
Wisconsin.....	191	8, 772	18	470
Wyoming.....	28	520	12	87
Total.....	35, 585	599, 227	4, 202	57, 930

TABLE 5.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING MARCH, 1924, AND FROM JULY, 1923, TO MARCH, 1924, BY OCCUPATIONS

Occupation	Immigrant		Emigrant	
	March, 1924	July, 1923, to March, 1924	March, 1924	July, 1923, to March, 1924
Professional:				
Actors.....	48	833	9	65
Architects.....	18	380	1	10
Clergy.....	115	1,661	11	268
Editors.....	6	47	2	8
Electricians.....	128	3,386	—	48
Engineers (professional).....	172	4,186	11	223
Lawyers.....	14	178	3	35
Literary and scientific persons.....	24	610	5	66
Musicians.....	65	1,282	4	58
Officials (Government).....	39	436	15	122
Physicians.....	64	995	5	61
Sculptors and artists.....	15	333	1	31
Teachers.....	182	2,809	13	203
Other professional.....	162	3,293	32	268
Total.....	1,052	20,429	112	1,466
Skilled:				
Bakers.....	106	3,277	6	135
Barbers and hairdressers.....	75	2,355	16	144
Blacksmiths.....	85	2,991	6	58
Bookbinders.....	6	257	1	2
Brewers.....	2	34	—	—
Butchers.....	63	2,571	8	73
Cabinetmakers.....	20	433	1	35
Carpenters and joiners.....	688	14,182	22	444
Cigarette makers.....	1	42	—	2
Cigar makers.....	7	239	11	250
Cigar packers.....	—	20	—	1
Clerks and accountants.....	1,121	21,404	55	716
Dressmakers.....	106	3,413	5	99
Engineers (locomotive, marine, and stationary).....	64	3,090	9	65
Furriers and fur workers.....	10	285	2	10
Gardeners.....	53	1,086	3	77
Hat and cap makers.....	7	286	—	2
Iron and steel workers.....	94	6,983	10	81
Jewelers.....	26	401	3	23
Locksmiths.....	2	3,607	—	3
Machinists.....	273	5,880	12	179
Mariners.....	480	7,606	20	244
Masons.....	170	4,908	18	134
Mechanics (not specified).....	310	7,401	21	164
Metal workers (other than iron, steel, and tin).....	34	1,045	3	17
Millers.....	12	500	—	76
Milliners.....	17	596	1	3
Miners.....	140	6,468	57	609
Painters and glaziers.....	146	3,371	6	97
Pattern makers.....	7	313	—	2
Photographers.....	9	400	1	10
Plasterers.....	40	593	1	23
Plumbers.....	87	1,812	2	50
Printers.....	72	1,502	4	35
Saddlers and harnessmakers.....	7	302	1	1
Seamstresses.....	72	2,128	5	34
Shoemakers.....	96	4,365	17	235
Stokers.....	56	868	1	15
Stonecutters.....	36	506	1	16
Tailors.....	125	6,255	29	252
Tanners and curriers.....	5	175	1	5
Textile workers (not specified).....	21	437	—	1
Tinners.....	18	667	1	6
Tobacco workers.....	2	27	—	1
Upholsterers.....	19	337	1	6
Watch and clock makers.....	6	495	—	7
Weavers and spinners.....	44	2,590	33	339
Wheelwrights.....	—	125	—	—
Woodworkers (not specified).....	17	456	2	3
Other skilled.....	230	4,970	16	132
Total.....	5,087	134,054	412	4,907

TABLE 5.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING MARCH, 1924, AND FROM JULY, 1923, TO MARCH, 1924, BY OCCUPATIONS—Concluded

Occupation	Immigrant		Emigrant	
	March, 1924	July, 1923, to March, 1924	March, 1924	July, 1923, to March, 1924
Miscellaneous:				
Agents.....	111	1,754	19	106
Bankers.....	4	140	4	70
Draymen, hackmen, and teamsters.....	80	1,554	1	53
Farm laborers.....	920	24,860	10	209
Farmers.....	809	17,025	83	1,189
Fishermen.....	206	2,571	7	58
Hotel keepers.....	13	155	4	24
Laborers.....	9,870	89,548	2,194	29,094
Manufacturers.....	16	461	6	56
Merchants and dealers.....	454	9,766	222	1,942
Servants.....	1,138	47,216	95	1,703
Other miscellaneous.....	1,135	22,535	137	2,886
Total.....	14,756	217,594	2,782	37,390
No occupation (including women and children).....	14,690	227,150	896	14,167
Grand total.....	35,585	599,227	4,202	57,930

TABLE 6.—STATUS OF THE IMMIGRATION OF ALIENS INTO THE UNITED STATES UNDER THE PER CENT LIMIT ACT OF MAY 19, 1921, AS EXTENDED BY PUBLIC RESOLUTION NO. 55, SIXTY-SEVENTH CONGRESS, APPROVED MAY 11, 1922, JULY 1, 1923, TO MAY 7, 1924

Country or region of birth	Maximum monthly quota	Admitted May 1-7, 1924	Annual quota	Admitted July 1 to May 7	Balance for year ¹
Albania.....	58		288	288	(²)
Armenia (Russian).....	46		230	175	152
Austria.....	1,468		7,342	7,342	(²)
Belgium.....	313		1,563	1,563	(²)
Bulgaria.....	61		302	302	(²)
Czechoslovakia.....	2,871		14,357	14,357	(²)
Danzig.....	60		301	301	(²)
Denmark.....	1,124		5,619	5,619	(²)
Estonia.....	270	41	1,348	815	1,530
Finland.....	784		3,921	3,921	(²)
Fiume.....	14	1	71	61	19
France.....	1,146	66	5,729	5,405	1,250
Germany.....	13,521		67,607	67,607	(²)
Great Britain, Ireland.....	15,468		77,342	77,342	(²)
Greece.....	613		3,063	3,063	(²)
Hungary.....	1,149	13	5,747	5,745	(²)
Iceland.....	15		75	31	144
Italy.....	8,411		42,057	42,057	(²)
Latvia.....	308		1,540	1,540	(²)
Lithuania.....	526		2,629	2,629	(²)
Luxemburg.....	19		92	92	(²)
Netherlands.....	721		3,607	3,607	(²)
Norway.....	2,440		12,202	12,202	(²)
Poland.....	6,195		30,977	30,977	(²)
Portugal.....	493		2,465	2,465	(²)
Rumania.....	1,484		7,419	7,419	(²)
Russia.....	4,881		24,405	24,405	(²)
Spain.....	182		912	912	(²)
Sweden.....	4,008		20,042	20,042	(²)
Switzerland.....	750		3,752	3,752	(²)
Yugoslavia.....	1,285		6,426	6,426	(²)
Other Europe.....	17		86	86	(²)
Palestine.....	12		57	57	(²)
Syria.....	177		882	882	(²)
Turkey.....	531		2,654	2,654	(²)
Other Asia.....	19		92	92	(²)
Africa.....	21		104	104	(²)
Egypt.....	4		18	18	(²)
Atlantic Islands.....	24		121	121	(²)
Australia.....	56		279	279	(²)
New Zealand and Pacific Islands.....	16		80	80	(²)
Total.....	71,561	121	357,803	356,835	885

¹ After all pending cases for which quotas have been granted and admissions charged to the quota during the current fiscal year have been deducted from the annual quota.

² Annual quota exhausted.

FACTORY AND MINE INSPECTION

Virginia ¹

THE activities of the inspection service of the Virginia Bureau of Labor and Industrial Statistics, exclusive of coal-mine inspection, are given below for the years ending September 30, 1922, and September 30, 1923:

ACTIVITIES OF FACTORY INSPECTORS IN VIRGINIA 1922 AND 1923

Item	Year ending—		Item	Year ending—	
	Sept. 30, 1922	Sept. 30, 1923		Sept. 30, 1922	Sept. 30, 1923
Total inspections.....	3, 045	4, 947	Corrections without recourse to law:		
Employees:			Child labor.....	117	
Male.....	45, 509	74, 515	Safety appliances.....	589	913
Female.....	29, 492	41, 641	Fire escapes.....	23	130
Orders issued:			Sanitary.....	193	271
Safety appliances.....	773	1, 345	Seats for females.....		48
Sanitary.....	202	286	Prosecutions:		
Fire escapes.....	23	141	Fire escapes.....		6
Violations:			Child labor.....	137	665
Child labor.....	254	717	Ten-hour law.....	16	251
Ten-hour law.....	16	251			
Seats for females.....		48			

Flagrant violations of the sanitary law were found in the matter of toilets. Upon receiving an order for compliance with the law, employers usually correct the insanitary conditions; but in cases of failure to do so, the best the inspection service can do is to issue other sanitation orders to be carried out in 28 days. Under the law 28 days' notice is required "before legal action can be taken."

Complaints have been received at the division of women and children relative to illnesses resulting from fumes, especially sulphuric acid fumes. There is no legal provision, however, for the elimination of this evil. The division can only use persuasion in this connection.

Coal-Mine Inspection

During the year ending June 30, 1922, coal-mine inspections numbered 316; in the previous year, 348. The number of recommendations made in the latter year was 1,232—88 more than in the first year of the biennium covered by the report.

There were 23 fatal and 648 nonfatal accidents in Virginia mines in the year ending September 30, 1922; in the following year 40 fatal and 1,025 nonfatal accidents.

Italy ²

THE Italian factory inspection service created by the law of December 22, 1912, has been reorganized by a royal decree of December 30, 1923, published in the Gazzetta Ufficiale of March 14, 1924.

¹ Virginia. Bureau of Labor and Industrial Statistics. 25th and 26th Annual Reports. Richmond, 1923.

² Confederazione Generale dell'Industria Italiana. L'Organizzazione Industriale, Rome, Mar. 15, 1924, p. 2.

The new decree assigns to the factory inspectors the following duties:

(a) To see to the enforcement of all labor and accident prevention laws in industrial and commercial establishments, offices, and agriculture and in general everywhere where salaried employees or wage workers are employed.

(b) To collect and transmit to the Ministry of National Economy news and information as to the condition and development of national production and in general all information concerning industry and labor that the ministry may request.

(c) To perform all the other duties prescribed by the law of December 22, 1912, or such as the Ministry of National Economy may specially assign to them.

Thirteen inspection districts are established by the decree, with headquarters in Turin, Genoa, Padua, Trieste, Milan, Brescia, Bologna, Florence, Rome, Naples, Bari, Catania, and Cagliari. At the head of each district is a chief district inspector. Inspection offices are, moreover, to be established in the capital of each Province and these offices are to be in charge of a principal inspector or of an assistant inspector. To the various district inspection offices are also assigned medical inspection officers. Where the exigencies of the service require it the chief district inspectors and the inspectors residing in the individual Provinces may employ suitable persons to assist them. Such assistants can, however, be employed for only a limited time, and when their contract expires it may be renewed for a period not to exceed five years. The number of special assistants in the inspection service proper may never exceed 120, and those employed in a clerical capacity may not exceed 40.

The conditions for admission to the factory inspection service and for subsequent promotion are specified in articles 15 and 19 of the royal decree of November 11, 1923. A number of positions are to be reserved for graduates in medicine, agricultural science, physics, and chemistry.

The salaries and other costs of special temporary assistants employed by the chief inspectors are to be borne by the social insurance institutes.

WHAT STATE LABOR BUREAUS ARE DOING

Illinois

A REPORT on volume of employment in Illinois in March, 1924, is given on pages 126 and 127 of this issue of the MONTHLY LABOR REVIEW.

Iowa

EMPLOYMENT conditions in Iowa industries in March, 1924, are shown on page 128 of the present number of the MONTHLY LABOR REVIEW.

Maryland

FOR the percentage changes in the number of employees and in the payrolls of various industries of Maryland from March to April, 1924, see table, page 129.

Massachusetts

VOLUME of employment statistics for March, 1924, for Massachusetts are published in the section on recent employment statistics, page 130. Earnings of male and female workers in the State for the same month are given on page 90.

New York

A TABLE on page 131 shows recent fluctuations in employment in selected industries in New York State.

Virginia

THE following data regarding industry in Virginia are taken from the 25th and 26th annual reports of the Bureau of Labor and Industrial Statistics of that State for the years ending September 30, 1922, and September 30, 1923:

SUMMARY OF VIRGINIA INDUSTRY FOR THE YEARS 1921 AND 1922

Item	1921	1922
Number of plants reporting	1,938	1,857
Capital invested	\$364,698,478	\$368,072,951
Value of output	\$463,825,895	\$471,840,736
Amount paid in salaries to salaried employees ¹	\$9,417,605	\$8,693,834
Amount paid in wages to wage earners ²	\$69,001,983	\$69,125,023
Total amount paid in wages and salaries	\$78,419,588	\$77,818,857
Number of salaried employees: ³		
Male	5,909	6,111
Female	1,930	1,524
Total	7,839	7,635
Number of wage earners:		
Male	80,982	69,466
Female	24,662	23,980
Total	105,644	93,446

¹ Does not include salaries of salaried employees in building trades, mines, and quarries.

² Does not include wages paid in building trades, mines, or quarries.

³ Does not include salaried help employed in building trades, mines, and quarries.

A calculation based on figures in the above table shows that the wage bill for 1921 was equivalent to 14.9 per cent of value of the output of all the industries reporting. The wage bill for 1922 was equivalent to 14.7 per cent of the value of output for that year. In this connection attention is called to the last column in the second section of the following table. In this column the percentage of the wage bill to value of output varies strikingly from industry to industry, ranging from 3.7 per cent in abattoirs, meats, packing, etc., to 37.1 per cent in sawmills.

SUMMARY OF CERTAIN LEADING INDUSTRIES IN VIRGINIA IN 1922

Industry	Number of plants reporting	Capital invested	Value of output	Total number of salaried employees ¹	Total number of wage earners
Abattoirs, meat packing, etc.	16	\$5,561,658	\$27,593,171	302	1,250
Cotton mill products	11	31,927,782	31,682,683	93	7,970
Fertilizer and guano	33	6,297,012	11,803,678	192	1,772
Flour and grist mill products	252	8,293,503	15,316,508	264	920
Furniture, mattresses, etc.	42	5,703,995	8,803,302	665	2,557
Iron and machinery	111	46,496,455	26,086,725	836	9,027
Lime, cement, and limestone	39	5,799,337	5,406,907	82	1,755
Paper and pulp mill products	9	10,590,709	18,174,425	125	2,748
Peanut cleaning establishments, coffee roasting, etc.	30	3,850,612	12,685,340	262	1,362
Printing and engraving	167	7,172,840	9,839,501	575	1,792
Sash, doors, and blinds	69	5,705,959	10,274,678	186	1,832
Saw mill products	88	13,090,921	9,271,794	184	5,974
Shipbuilding	3	13,461,653	16,303,722	553	5,363
Silk mill products	12	15,470,919	19,873,083	133	5,831
Tannery products and tanning extracts	24	8,606,719	10,201,635	86	1,925
Tobacco and its products	82	41,781,528	101,700,758	512	13,608
Wood products (baskets, boxes, crates, and shooks)	42	11,124,238	11,946,519	204	4,258

Industry	Amount paid in salaries to officials	Amount paid in salaries to salaried employees	Amount paid in wages to wage earners	Total amount paid in wages and salaries	Per cent of value of output paid in wages
Abattoirs, meat packing, etc.	\$239,776	\$549,205	\$1,029,257	\$1,818,238	3.7
Cotton mill products	213,299	187,152	6,832,736	7,233,187	21.6
Fertilizer and guano	206,788	312,146	1,015,484	1,534,418	8.6
Flour and grist mill products	267,468	185,346	782,346	1,235,160	5.1
Furniture, mattresses, etc.	183,644	152,270	1,904,445	2,240,359	21.6
Iron and machinery	1,117,314	1,377,811	9,249,561	11,744,686	35.5
Lime, cement, and limestone	156,708	80,589	1,321,955	1,559,252	24.4
Paper and pulp mill products	180,022	315,970	2,198,450	2,694,442	12.1
Peanut cleaning establishments, coffee roasting, etc.	199,476	184,495	618,321	1,002,292	4.8
Printing and engraving	659,634	1,015,347	2,680,587	4,355,568	27.2
Sash, doors, and blinds	352,064	283,120	1,778,035	2,413,190	17.3
Saw mill products	249,947	131,781	3,443,070	3,824,798	37.1
Shipbuilding	77,328	573,315	5,206,366	5,857,009	31.9
Silk mill products	124,015	349,052	4,751,828	5,224,895	23.9
Tannery products and tanning extracts	191,878	139,793	1,102,102	1,433,773	10.8
Tobacco and its products	525,952	669,710	6,928,097	8,123,759	6.8
Wood products (baskets, boxes, crates, and shooks)	366,367	294,190	2,574,569	3,235,126	21.6

¹ Not including officials.

Accounts of certain activities of the Virginia bureau of labor and industrial statistics appear in the sections on child labor and factory and mine inspection, pages 97 and 199.

CURRENT NOTES OF INTEREST TO LABOR

Attempt of Brazilian Government to Reduce the Cost of Living

A RECENT communication from the United States consul at Rio de Janeiro, Brazil, states that the President of Brazil promulgated a decree on March 19, 1924, which provides that action be taken to reduce the present excessive costs of living in Brazil and especially in Rio de Janeiro. Prices of milk, meat, fish, rice, beans, flour, potatoes, sugar, and coffee are covered by this decree. A committee of governmental officials appointed for the purpose of discussing steps to be taken by the Government to combat these prevailing high food prices concluded that a large percentage of the price increases have been due to activities of food profiteers and speculators.

Emergency grocery stores are to be established and the operation of curb markets is to be encouraged according to the decree, for the purpose of selling staple food products at the lowest possible prices. The decree authorizes the Minister of Transportation and Public Works to make any other regulations he considers essential for a strict enforcement of the present decree, which became effective on March 19, 1924.

Industrial Notes from China

THE Chinese Economic Bulletin, April 5, 1924, which is compiled and published by the Chinese Government Bureau of Economic Information at Peking, contains the following items of information:

Railway Operation

The Kiaochow-Tsinan Railway, with a length of some 250 miles including a 10-mile feeder passing through certain coal-mining districts, has recently been taken over by the Chinese after having been operated by the Japanese. The gross operating revenue of the line in 1923 was \$9,800,000, about one-third of which came from the short line running through the coal section. The railway system has about 100 locomotives, 200 passenger cars, and 1,600 freight cars. The use of new American locomotives which carry a heavy dead weight has resulted in damage to about one-tenth of the 1,000 bridges on the line. Under the former management there was much discrimination in the freight rates on coal, Japanese shippers paying lower rates than Chinese and high discounts being granted to mining companies through special contracts. In order to unify rates the railway administration has adopted special freight rates for coal. The rates vary according to the destination of the shipments, distinguishing between coal intended for export, coal transported between stations, and that shipped within the suburbs of Tsingtao. The ordinary rate is 1.2 cents per ton-kilometer and the export rate \$2.10 per ton. The total number of employees on the railroad is 5,923, of whom 1,480 are officials. This is an increase of 512 officials

over the number employed when the line was under Japanese control and a total increase of 979 employees under the new administration.

Compulsory Education

In the Province of Shensi the primary schools are at present largely maintained by private funds and there is only a small attendance of the children of the villages. The provincial authorities have planned to adopt a system of compulsory education. Commercial taxes and a surtax on land as well as public funds will be used to support these schools and a board elected in each district will administer the school fund. Normal schools will be established and a college known as Northwestern University is now being organized. It is expected that the latter institution will draw students from other Provinces.

Establishment of a Standardization Office in Norway

IN OCTOBER, 1923, the Norwegian Industrial Association took steps toward the standardization in Norway of all industrial commodities. To carry out this work, a standardization committee was established with the help of Government and private subscriptions.¹

Commerce Reports for April 28, 1924, states that a standardization office has recently been established by the Norwegian Government to investigate standards at home and abroad for the purpose of adopting those that are applicable to Norwegian industries. Efforts will be made to attain greater uniformity in the dimensions, patterns, and quality of the products in Norway and to abolish unnecessary variations. Attention will first be given to the standardization of paper sizes and the uniform execution of technical drawings.

It is stated that subsequently all other products will be considered with the idea of reducing production costs and giving the consumer goods of greater practical usefulness.

¹ See MONTHLY LABOR REVIEW, January, 1924, p. 205.

PUBLICATIONS RELATING TO LABOR

Official—United States

MICHIGAN (GOGEBIC COUNTY).—Inspector of Mines. *Annual report for the year ending September 30, 1923.* [Ironwood, 1923?] 38 pp.

The average number of men employed for the full working year of 300 days in the 15 mines covered by the report was 4,793. A total of 1,657 accidents occurred during the year, 345 of which were compensable. Of the compensable accidents, 11 were fatal, 37 resulted in lost time of more than 3 months, and 297 lasted less than 3 months. The average number of compensable days per reported accident was 24.4 and the average number of compensable accidents per 100,000 man-days was 23.8.

NEW YORK.—Department of Labor. *Court decisions on workmen's compensation law, November, 1922–February, 1924.* Albany, 1924. 135 pp. *Special bulletin No. 123.*

This bulletin is the fifth in a series of special bulletins presenting court decisions and opinions upon subjects other than constitutionality and coverage, these two points being discussed in another series of bulletins. The subject matter presented in the current issue is distributed under 18 principal heads, these being subdivided variously so that it is possible to find grouped the current opinions and rulings on any one of a number of the more important points involved in compensation legislation and administration. Taken together the two series of bulletins comprise an important body of precedents established by one of the most important industrial States, whose judicial interpretations are highly respected by the courts of other States.

VIRGINIA.—Bureau of Labor and Industrial Statistics. *Twenty-fifth and twenty-sixth annual reports. Part I, October 1, 1921, to September 30, 1922; Part II, October 1, 1922, to September 30, 1923.* Richmond, 1923. 224 pp.

Data from this report are published on pages 97, 199, and 201, of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—Department of Agriculture. *Conditions affecting the demand for harvest labor in the wheat belt, by Don D. Lescquier.* Washington, 1924. 46. pp. *Bulletin No. 1230.*

In order to make a more accurate estimate of the labor needed in the wheat belt so that the requisite number of men may be attracted to these localities, the Bureau of Agricultural Economics made a study of conditions in 66 of the most important wheat-growing counties of the United States. The various factors influencing the demand for additional workers in harvest and threshing periods were studied, including the different kinds of machinery used, different methods of farm management, and different systems of cropping. Tables are given in this report showing the total acreage of farms, the percentage of grain acreage, the number of laborers per 100 acres, the length of the harvest period by size of farms, the labor turnover, methods of obtaining harvest labor, number of workers placed by Federal and State employment offices, and average wages and hours.

— Department of Commerce. Bureau of the Census. *Children in gainful occupations at the Fourteenth Census of the United States.* Washington, 1924. 276 pp.

Contains the child labor statistics of the Fourteenth Census, with an introductory analysis, and a special detailed analysis of the figures relating to thirteen occupations regarded as of particular importance. Some of the data relating to the general child labor situation are summarized on pages 95 and 96 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—Department of the Interior. Bureau of Mines. *Stone dusting or rock dusting to prevent coal-dust explosions, as practiced in Great Britain and France*, by George S. Rice. Washington, 1924. iv, 57 pp. Bulletin 225.

Gives a study of foreign experiments in the use of rock dust to prevent explosions of coal dust, based on the author's personal observation and on published records, and discusses the application to American mines of the results of the European experience.

— Department of Labor. Bureau of Labor Statistics. *Proceedings of the eleventh annual meeting of the International Association of Public Employment Services, held at Toronto, Canada, September 4-7, 1923*. Washington, 1924. vi, 56 pp. Bulletin No. 355. *Employment and unemployment series*.

This bulletin contains the addresses delivered at the eleventh annual meeting of the association. The conference was attended by representatives of the Federal and State employment services of the United States and by Federal and Provincial representatives of the Canadian Employment Service, as well as by many other persons interested in employment and unemployment problems. The program was divided into four topics: Public employment service, Unemployment, Rehabilitation, and Migratory labor. There was considerable discussion at the business session of the proposed amalgamation with the International Association of Governmental Labor Officials, and a committee to meet with a similar committee from the other organization to formulate a satisfactory basis for the confederation of the two associations was authorized.

— Railroad Labor Board. *Average daily wage rates of railroad employees on Class I carriers*. Washington, 1924. 12 pp. *Wage series, report No. 4*.

Figures from this report are published on pages 86 to 90 of this issue of the MONTHLY LABOR REVIEW.

Official—Foreign Countries

AUSTRALIA.—Court of Conciliation and Arbitration. *A report of cases decided and awards made, including conferences convened by the president and deputy presidents during the year 1922*. Melbourne [1923?]. xxiv, 1530 pp. *Commonwealth arbitration reports, Vol. 16*.

— (NEW SOUTH WALES).—Bureau of Statistics. *Official year book, 1922*. Sydney, 1924. 740 pp.

Gives a résumé of the history and development of New South Wales, and statistics and descriptive text dealing with various aspects of the industrial, commercial, and agricultural life, Government organization and activities, and the like.

— (WESTERN AUSTRALIA).—Government Statistician. *Pocket year book, 1924*. Perth, 1924. 104 pp.

A small compendium of statistical information including the subjects of building, cooperative, and friendly societies, employment, wages, immigration and emigration, index numbers of purchasing power of money, etc.

BELGIUM.—Ministère de l'Industrie et du Travail. Conseil Supérieur du Travail. *Douzième session, 1920-1923. Vol. I*. Brussels, 1923. 517 pp.

Volume 1 of the proceedings of the twelfth session of the Superior Labor Council of Belgium, 1920 to 1923. Special reports were presented on the application of the law of June 14, 1921, relating to the 8-hour day and the 48-hour week, the law of July 17, 1905, on Sunday rest in industrial and commercial enterprises, and the Government bill regulating home work.

— — Inspection du Travail. *Rapports annuels 23^{me} année (1922)*. Brussels, 1923. 299 pp.

The twenty-third annual report of the labor inspection service of Belgium. The report covers accidents, hours of work, work of women and children, factory regu-

lations, health and safety, etc. The results of the inspections are reported by Provinces.

BELGIUM.—Ministère de l'Industrie et du Travail. Office du Travail. *Annuaire de la législation du travail, années 1914 à 1919. Tome II. Brussels, 1923. xvi, 536 pp.*

This volume contains the text of labor laws and decrees promulgated in France and Great Britain during the years 1914 to 1919.

CANADA.—Commission to inquire into the industrial unrest among the steel workers at Sydney, N. S. *Report. Ottawa, 1924. 24 pp. Printed as a supplement to the Labor Gazette, February, 1924.*

Among the conclusions and recommendations made by the commission are the following:

Working hours have been excessive in certain of the company's departments under the two-shift system.

Prompt and earnest attention should be given to the abolition of the 24-hour change-over period and the 7-day week.

Careful consideration should be given to the matter of establishing the 3-shift plan (8 hours per shift) in the departments where the processes are continuous, and a maximum of 10 hours per day for other workers.

The company should discuss with employees' representatives the question of using some of the surplus acquired in prosperous years to tide the shareholders and employees over periods of industrial depression when lowered wage rates are being contemplated and irregular employment is in prospect.

In case the preceding recommendation is not acted upon, an investigation of what is done with the company's surplus funds should be made by some competent authority.

—(Nova Scotia).—Department of Public Works and Mines. Factories Inspector. *Annual report for year ended September 30, 1923. Halifax, 1924. 24 pp.*

It is stated in the above publication that the number of accidents in the factories of Nova Scotia for the year covered by the report was 1,422, including 9 fatalities. In the preceding year there were 1,326 accidents, of which 9 were fatal.

FRANCE.—Ministère du Travail. Statistique Générale de la France. *Statistique annuelle des institutions d'assistance, années 1920 et 1921. Paris, 1923. li, 128 pp.*

A statistical report on the operation of various institutions for assistance in France for the years 1920 and 1921, including statements of relief granted for old-age and invalidity, care of orphans and abandoned children, maternity allowances, and assistance to large families.

GREAT BRITAIN.—[Exchequer and Audit Department.] *Unemployment. Statistics relating to financial provision for relief of unemployment (including post-war resettlement of ex-members of His Majesty's forces) from the armistice. London, 1924. 12 pp. Cmd. 2082.*

The approximate amounts allotted to various unemployment relief schemes were as follows:

Training and resettlement	¹ £102, 000, 000
Unemployment insurance	42, 500, 000
Unemployment grants committee	4, 500, 000
Ministry of Transport programs:	
Resettlement	9, 250, 000
Acceleration of road schemes	8, 250, 000
Miscellaneous	1, 250, 000
Land settlement	2, 250, 000
Women's training, etc.	500, 000
Total	170, 500, 000

¹ Pound sterling at par=\$4.8665. Exchange rate varies.

The greater part of the amount appropriated for training and resettlement went for the out-of-work donation of the early postwar period, only about £35,000,000 being devoted to training. A somewhat detailed statement is given of the income and expenditures of the unemployment insurance fund, showing that £154,874,000 has been paid out in benefits, and that of the income during this period, which (apart from resources on hand, interest, and loans) amounted to £141,837,000, the Government contributed 26.8 per cent, the employers 38.3 per cent, and the employees 34.9 per cent.

From the time of the armistice the net amount expended for training unemployed women was £448,022, of which the Government contributed 56 per cent, while for the training of unemployed juveniles it spent £100,900.

In addition to the amounts thus contributed by the central Government, the poor-law authorities, during the period from the armistice up to January 26, 1924, gave in relief to "persons ordinarily engaged in some regular occupation and their dependents" £24,890,195.

GREAT BRITAIN.—Home office. Committee on compensation for silicosis. *First report, dealing with the refractories industries (silicosis) scheme, 1919.* London, 1924. 71 pp.

The industries covered by the silicosis compensation scheme are those engaged in getting and manipulating highly siliceous materials used in the manufacture of refractory bricks and other articles for lining furnaces. Employees in these industries developing silicosis as a result of exposure to silica dust have been eligible for workmen's compensation since February 1, 1919. During the five years in which the scheme has been in operation compensation has been paid in 170 cases. The present report discusses briefly the causation of silicosis and its effect on workers; conditions which led to the enactment of the workmen's compensation (silicosis) act, 1918, especially in relation to the refractories industries; and a study of defects in the provisions and administration of the act. As a result of the study the committee recommends certain changes in the scheme, including better provisions for medical examination and for radiographic examinations, suspension from further employment in these industries of workmen found to be suffering from tuberculosis, and provision of a specific penalty for employers who continue to give employment to any workman who has been suspended under the scheme. The appendixes contain the text of the silicosis act, 1918; the workmen's compensation act, 1906; a financial statement of the refractories industries compensation fund; and an account of the provisions for dealing with miners' phthisis in South Africa.

INTERNATIONAL LABOR OFFICE.—Russia. *Orders: Hygiene and Safety.* Geneva [1923?]. 43 pp. *Legislative series, 1922—Russ. 2.*

This pamphlet contains the text of orders of the People's Labor Commissariat relating to the protection of workers in bristle and brush industries, manufacture of mineral salts and acids, the construction and operation of lifting apparatus, clothing industry, agriculture, fur industry, tobacco factories, peat works, paper industry, and manufacture of chrome salts.

———. *Regulations: Assessment and disputes committees.* Geneva [1923?]. 3 pp. *Legislative series, 1922—Russ. 5.*

An order of the People's Labor Commissariat respecting the organization of assessment and disputes committees in State, public, and private institutions.

———. *Regulations: Hours of work.* Geneva [1923?]. 11 pp. *Legislative series, 1922—Russ. 3.*

The text of the regulations concerning the working day and the calculations of the hours of work for wage-earning and salaried employees in the transport industry, and the hours of work in hospitals, sanatoria, and veterinary institutions are published in this pamphlet.

SWEDEN.—[Socialdepartementet.] Pensionsstyrelsen. *Allmänna pensions försäkringen år 1922. Stockholm, 1923. 20 pp. Sveriges officiella statistik. Försäkringsväsen.*

Report of the Swedish Pensions Board on compulsory old-age and invalidity insurance in Sweden. Certain figures from this report are given in the article on pages 160 and 161 of this issue of the MONTHLY LABOR REVIEW.

— — — Socialstyrelsen. *Arbetartillgång, arbetstid och arbetslön inom Sveriges jordbruk år 1922. Jämte specialundersökning rörande vissa löne- och arbetsförhållanden (Del I). Stockholm, 1924. 122 pp. Sveriges officiella statistik. Socialstatistik.*

A report by the Swedish Social Board on labor supply, hours of work, and wages in Swedish agriculture in 1922. Also contains Part I of a report of a special investigation into wages and working conditions on the larger farms for the years 1920–21 and 1921–22.

SWITZERLAND.—[Finanz- und Zolldepartement.] *Statistisches Bureau. Statistisches Jahrbuch der Schweiz, 1922. Bern, 1923. viii, 430 pp.*

The thirty-first volume of the Swiss statistical yearbook, covering the year 1922. In addition to the usual statistical data covered by preceding issues, the present issue contains a considerable number of new statistical tables. Of special interest to labor are the statistics relating to the occupational census, industrial establishments, cooperative societies (see p. 178 of this issue of the MONTHLY LABOR REVIEW), the labor market, prices, cost of living, wages, and social insurance.

Unofficial

AMERICAN FEDERATION OF LABOR. *Report of the proceedings of the forty-third annual convention, held at Portland, Oreg., October 1 to 12, inclusive, 1923. Washington, 1923. xxiv, 388 pp.*

An article on this meeting was prepared from an advance copy of the above report and published in the MONTHLY LABOR REVIEW for December, 1923 (pp. 173–175).

AMERICAN MANAGEMENT ASSOCIATION. *Financing benefit systems. New York, 20 Vesey St., 1924. 16 pp. Convention address series, No. 8.*

This pamphlet contains addresses delivered at the convention of the association in October, 1923, on employees' benefit associations, covering the experience of one which is financed jointly by employers and employees, one by employers alone, and a third by employees alone.

BLACKFORD, KATHERINE M. H., AND NEWCOMB, ARTHUR. *The right job: How to choose, prepare for, and succeed in it. New York, Doubleday, Page & Co., 1924. x, 603 pp. 2 vols.*

This study of character analysis is designed to assist parents, teachers, and vocational counselors to direct young people into occupations suited to their tastes and capabilities. The first volume deals with the principles and practice of character analysis, giving lists of occupations suitable for different types of individuals. The second volume discusses the necessary preparation for work in the different industries and occupations, how to get the right job, and how to succeed in the right job.

BOURDEAUX, HENRY. *Code des accidents du travail avec annotations d'après la doctrine et la jurisprudence. Paris, Librairie Dalloz, 1924. 485 pp. Septième édition. Petite collection Dalloz.*

This compilation covers both the legislation and jurisprudence relating to labor accidents. The text of all laws and decrees, beginning with the law of April 9, 1898, and including those enacted in 1923, is given in full.

DOWNEY, E. H. *Workmen's compensation. New York, 1924. xxv, 223 pp.*

A digest of this book is given on pages 156 and 157 of this issue of the MONTHLY LABOR REVIEW.

INTERNATIONAL ASSOCIATION ON UNEMPLOYMENT. *Control of credit as a remedy for unemployment*, by J. R. Bellerby. London, P. S. King & Son (Ltd.), 1923. 120 pp.

"All the history of social effort from 1920 to 1923 has evidenced the complete failure of conventional or 'recognized' remedies to strike at the root of the evil of unemployment." The author of the present volume, therefore, believes it necessary to consider proposals which are as yet untried and which must accordingly be classed as theoretical. An examination of the works of the most eminent writers on unemployment and the trade cycle has shown him that the field of finance has been the one in which many have hoped to find the most effective solution. In particular, the regulation of the issue of credit and currency in such a way as to stabilize industrial conditions has been very prominently advanced. Accordingly, the author has made a thorough examination of this phase of the question.

The various links in the chain of reasoning are as follows: (1) Unemployment will be reduced if industry can be stabilized at a comparatively high level of activity; (2) greater stability in industry can be secured by greater stability of the price level; (3) the movement of the price level is determined largely by the volume of money or purchasing power made available to the community; (4) control over the expansion or contraction of the purchasing power of the community rests partly with the banks, by virtue of their possessing some degree of control over the means whereby the community makes its purchases. By assisting the expansion of this purchasing power they can facilitate a boom in prices; by contracting it they can intensify depression. If they were in a position to regulate it in such a way as to minimize price fluctuations, they could thereby secure greater equilibrium in production, thus leading to a reduction of unemployment.

INTERNATIONAL FEDERATION OF TRADE UNIONS. *Second statistical yearbook, 1923-24*. Amsterdam, 1924. 237 pp.

This yearbook is published in English, French, and German. It gives the composition of the bureau and of the management committee of the I. F. T. U., the names and addresses of affiliated national trade-union centers, and a directory and statement of membership of organizations affiliated to these centers and of the International Trade Secretariats and their affiliated organizations. There are also tables showing the membership of the various organizations in the different countries and their financial status.

INTERNATIONAL SEAMEN'S UNION OF AMERICA. *Proceedings of the twenty-seventh annual convention, held at New York City, January 14 to 21, inc., 1924*. Chicago, 1924. 192 pp.

ISTITUTO ITALIANO D'IGIENE, PREVIDENZA ED ASSISTENZA SOCIALE. *L'organizzazione umana del lavoro, da Giovanni Loriga*. Florence, 1923. 151 pp.

This volume, published under the auspices of the Italian Institute for Hygiene, Welfare Work, and Social Aid, and written by the chief medical factory inspector of Italy, attempts to impress employers with the idea of giving greater consideration to the human factor in industrial management. By referring to American and British examples he shows that the highest physical and psychical activity of the workers can be attained by promoting general and vocational education, thus developing the talent of production; by safeguarding and promoting health, thus assuring power of production; and finally by keeping the workers contented in order that the work may be performed willingly. Since the author is a medical factory inspector, it is but natural that he lays considerable stress upon the desirability of employing industrial physicians and nurses in the welfare departments of large plants.

JOSEPH, H. W. B. *The labor theory of value in Karl Marx*. London, Oxford University Press, 1923. 176 pp.

The author discusses the theory advocated by Karl Marx "that the exchange value of commodities arises from and is to be measured by the labor put into them," and that in a capitalist society the laborer is defrauded of the value he creates. The writer attacks the theory on the ground that it is fundamentally false and that through its fallacy it clouds the schemes for reform of the working classes, while on the other hand it exasperates by its injustice those whom they attack.

LEWIS, E. LLEWELYN. *The children of the unskilled—an economic and social study*. London, P. S. King & Son (Ltd.), 1924. xxi, 109 pp.

An effort to determine the chances of children of unskilled workers to enter the ranks of the skilled. The discussion is based upon a careful study of the living conditions of 450 families of unskilled laborers, comprising over 2,000 children, in three different communities. A number of different factors are considered, ranging from the effects of the modern industrial system to the personality of the parents, but most of these, it is pointed out, are either derived from or closely involved with the economic and social status of the families studied. Two main lines of action are indicated.

Various factors working interdependently determine the prospects of the children in industry. The economic factor is of greatest importance in this respect. It mainly determines the standard of living, the health and strength, the outlook of the unskilled and their social influence. The first necessity for improving the prospects of the children is, therefore, a change in their economic condition.

At the same time, however, educational reform must also take place, and there must be a cooperation of all classes in their welfare, so that their social status may be increased.

MILLER, EARL J. *Workmen's representation in industrial government*. [Urbana, University of Illinois Press, 1924?]. 183 pp. Reprinted from the *University of Illinois Studies in the Social Sciences*, Vol. X, Nos. 3 and 4, pp. 405-588.

The development of shop-committee plans in the United States is presented in this study from the standpoint of their origin, form and methods, the reasons for their introduction, and the results obtained. The relation of these plans to the trade-union movement is discussed and the arguments of both sides are given. In this connection the council movement in foreign countries is briefly described as are also the joint councils which have developed in connection with the unions in certain industries.

NATIONAL HOUSING ASSOCIATION. *Proceedings of the ninth national conference on housing, Philadelphia, December 5, 6, and 7, 1923. Housing problems in America*. New York, 105 East 22d St. [1924]. xi, 408 pp.

Some account of the proceedings of this conference was given in the MONTHLY LABOR REVIEW for February, 1924 (pp. 172-175).

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Wages, hours, and employment in American manufacturing industries, July, 1914—January, 1924*. New York, 10 East 39th St., 1924. vii, 104 pp. Research report No. 69.

This report shows the trends in wages from June, 1920, through January, 1924, compared with the pre-war figures for July, 1914. There are 23 major industries included in the report, covering 1,678 manufacturing plants. The largest number of wage earners employed in any one month for the period of the report was 697,965 in June, 1920, or approximately 16 per cent of the total number of wage earners in these industries. Tables and charts show the fluctuations in "money" wages and "real" earnings, the latter being based on the cost of living. These data are shown for the different industries separately and there are also a number of summary tables and charts.

NATIONAL SAFETY COUNCIL. *The removal of floating dust in grain elevators. Report of an investigation by Underwriters' Laboratories for the committee on dust control in grain elevators. Chicago, 168 North Michigan Avenue, 1924. 32 pp.*

The control of the escape of grain dust in terminal elevators for the purpose of lessening the explosion hazard was the subject of this practical test of different systems of dust removal. Heretofore the great difficulty in the way of general installation of exhaust systems in grain elevators has been the determination of a method of removing the floating dust without at the same time "picking up an appreciable percentage of solid grain." The kind of installation described in this report is considered desirable from every standpoint and has been accepted by the State authorities representing the interests of the grain producers and shippers and by those interested in safety, in Minnesota and Wisconsin.

PENNSYLVANIA COMPENSATION RATING AND INSPECTION BUREAU. *Coal-mine section. Statistical analysis of coal-mine accidents in Pennsylvania, 1916 to 1922, inclusive. Harrisburg [1923?]. 140 pp.*

Data from this report are published on pages 153 to 155 of this issue of the MONTHLY LABOR REVIEW.

STONE, GILBERT. *The rent restrictions acts, 1920 and 1923, with rules thereunder, together with cases in the English, Scotch, and Irish courts. London, Ernest Benn (Ltd.), 1923. 234 pp.*

An attempt to bring together the rules and principles underlying decisions given in rent cases, and thereby to afford a clue through the mazes of the acts, amendments, new acts, and supplementary amendments which have brought the rent laws to a state of almost hopeless complexity.

TUGWELL, REXFORD GUY, Editor. *The trend of economics. New York, Alfred A. Knopf, 1924. xi, 556 pp.*

A collection of articles by economists, most of them belonging to the younger generation, which embody the views of these writers toward the problems of economics. In general the purpose of the book is to show the views of each as to what the trend of economic science is, what it seems to the writer that it ought to be, and the contribution his own theory makes. The appendixes contain a guide to the history and previous work of the contributors and a bibliography.

VERBAND SCHWEIZERISCHER KONSUMVEREINE (V. S. K.), Basel. *Rapports et comptes concernant l'activité des organes de l'Union en 1923. Basel, 1924. 101 pp.*

Certain statistics taken from this report are given on pages 178 and 179 of this issue of the MONTHLY LABOR REVIEW.

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS

*[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively, beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application. The bulletins marked thus * are out of print.]*

Wholesale Prices.

- *Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- *Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- *Bul. 181. Wholesale prices, 1890 to 1914.
- *Bul. 200. Wholesale prices, 1890 to 1915.
- *Bul. 226. Wholesale prices, 1890 to 1916.
- Bul. 269. Wholesale prices, 1890 to 1919.
- Bul. 284. Index numbers of wholesale prices in the United States and foreign countries. [Revision of Bulletin No. 173.]
- Bul. 296. Wholesale prices, 1890 to 1920.
- Bul. 320. Wholesale prices, 1890 to 1921.
- Bul. 335. Wholesale prices, 1890 to 1922.
- Bul. 367. Wholesale prices, 1890 to 1923. [In press.]

Retail Prices and Cost of Living.

- *Bul. 105. Retail prices, 1890 to 1911: Part I.
Retail prices, 1890 to 1911: Part II—General tables.
- *Bul. 106. Retail prices, 1890 to June, 1912: Part I.
Retail prices, 1890 to June, 1912: Part II—General tables
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- *Bul. 121. Sugar prices, from refiner to consumer
- Bul. 125. Retail prices, 1890 to April, 1913.
- *Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- *Bul. 138. Retail prices, 1890 to October, 1913.
- *Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the war.
- *Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.
- Bul. 270. Retail prices, 1913 to 1919.
- Bul. 300. Retail prices, 1913 to 1920.
- Bul. 315. Retail prices, 1913 to 1921.
- Bul. 334. Retail prices, 1913 to 1922.
- Bul. 357. Cost of living in the United States. [In press.]
- Bul. 366. Retail prices, 1913 to December, 1923. [In press.]

Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- *Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- *Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
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